

THE *Country* GUIDE

CANADA'S NATIONAL RURAL MONTHLY

In this issue . . .

- Rockhounds
- Mastitis Control
- Classroom Clothes



AUGUST 1960 — 15¢



Could **YOU** afford a **FIRE** like this?

It resulted in an estimated loss of \$20,000—the savings of a lifetime gone up in flames in a few short hours. Could you afford a FIRE like this?

Fire insurance—enough of it—can reduce such a tragedy to no more than a temporary setback. The lack of it can mean bankruptcy at worst, hard years of rebuilding at best.

Of course, the best way to avoid fire loss is not to let it happen. It would be a good idea to go over

your buildings today and make sure you're not taking any risks you don't have to. A few items to check: lightning rods, electric wiring, heating plant and chimneys. Don't keep gasoline.

And, just in case you have a fire in spite of your care, check your fire insurance coverage. Your U.G.G. insurance man can help you make sure that if fire should hit you, you will be able to get rolling again fast. It will pay you to see him. Today?

P.S.

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INSURANCE AGENCIES LIMITED**

(FORMERLY UNITED GRAIN GROWERS SECURITIES COMPANY LIMITED)

THE Country GUIDE

Incorporating The Nor'-West Farmer and Farm and Home

CANADA'S NATIONAL RURAL MONTHLY

In This Issue



- **EAST-WEST SHEEP** crossbreeding idea is taking shape in Manitoba, and it could give a lift to the whole industry. See "The Three-Stage Lamb" featured on page 15.

- **OUR WATER SERIES**, covering town, irrigation and farm home supplies continues in this issue with "Choosing a Water System" by engineering expert Jack Peck on page 17.

BULBS ARE A BOON. Looking for easy-to-care-for flowers that bloom in the spring? If so, you will find the article on page 42 helpful.

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COVER: An eyeful of color to herald the coming of the beautiful season of chrysanthemums.—Luoma photo.

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Editorials

A New Venture in Rural Policy

INVESTIGATIONS which may have far-reaching effects for our farm communities have been proceeding in Ottawa since 1957. We refer to the studies being conducted by the Special Committee of the Senate on Land Use in Canada. Thus far they have received a minimum of public attention. Notwithstanding, they should not be written off as being of little consequence. They are leading, in our judgment, to a much broader understanding of certain aspects of the farm problem, and hence, can provide a sound basis for important new policy decisions.

Within the framework of the subject of land use, the Special Committee has devoted the bulk of its time and efforts in both 1959 and 1960 to a consideration of the "small farm problem" and the best ways and means of helping to meet it. The term "small farm problem" was taken by the Committee to mean the substantial number of farms in Canada whose economic position was believed to be completely unsatisfactory and constituted a public problem; and which could not hope to provide an adequate standard of living without help and action programs from governments. For example, in describing the breadth of the problem, it was pointed out to the Committee that the 1956 Census of Agriculture showed that 120,242 farms, or 21 per cent of the total farms in Canada at that time, were non-commercial farms having an estimated potential gross annual value of production of crops and livestock (including farm products consumed at home) of less than \$1,200.

DURING the current Session of Parliament, the Committee has given priority to a detailed study of the United States Rural Development Program. This program, which was described briefly and commended to the Government on this page in April 1958, was launched in 1955 and has continued to gain momentum and popularity ever since. To the best of our knowledge it is one of the few elements of U.S. farm policy which receives universal support.

The three main approaches used in the U.S. program are summed up in the Special Committee's report which was presented to the Senate last month. These approaches are as follows:

"First, economic and social betterment is being sought by emphasis on total area development. The range of activities goes much beyond the traditional framework of agricultural policies, programs and extension services. As a matter of fact, in the low-income areas, major emphasis is now largely directed to non-agricultural fields such as forestry, industry and labor, tourism and recreation, education, public problems and leadership.

"Secondly, the services of government departments and agencies have been co-ordinated, re-directed, refashioned and focussed on rural development through direct lines of communications of state and local committees so as to hit at the places of need . . .

"Thirdly, a basic tenet of the Rural Development Program is the belief that local people can do things to help themselves if they are provided with motivation, leadership and financial aid. This is being done under the guidance of the federal-state extension service and with the help of many community-minded leaders. A principal advantage of uniting local people for team effort is the harmonization of the needs in the community with the capabilities of the people and other resources."

After sending a group of well-qualified Department of Agriculture officials to study the U.S. Rural Development Program at first hand, and after bringing two of the program's experts to Ottawa to submit additional evidence and to answer questions, the Senate Committee became convinced that, in a short time, Rural Development in the U.S. has accomplished much to improve the welfare of people in low-income areas.

Believing there is a need to eliminate similar problem areas in Canada where farm businesses are small, productivity low and incomes inadequate for family requirements, the Committee has recommended that a Federal-Provincial Rural Development Program be instituted in Canada to deal with areas of greatest need.

WE heartily endorse the Senate Committee recommendation. We firmly believe the only practical and effective way to resolve the "small farm problem" is to design a program to deal directly with it. Policies developed to meet the needs of the majority of the commercial farmers, such as price supports, crop insurance, marketing plans, extension of production information, and the usual types of farm credit, are largely incapable of improving the lot of the low-income farmer.

The Rural Development Program has several other characteristics which appeal to us. It is based essentially on the sound principle of self-help. It can effectively utilize already existing

organizations and governmental agencies and personnel, and can channel their efforts to the achievement of specific objectives. While it will require modest public expenditures, mainly for the hiring of additional well-trained personnel, these will be small by comparison to the expenditures on certain existing and much less beneficial programs that could be named.

The type of rural development envisaged means that many families, who are unable to earn an adequate living in agriculture, can still live and work in rural areas and small towns, thus leaving them in familiar and preferred surroundings while at the same time improving their communities as a whole. It will help some of the younger people to adjust to non-farm life more easily and quickly than would otherwise be the case. It can give some of the older people in rural communities a new lease on life. It can lead to an improvement in the pattern of land use, and make our countryside a more attractive and pleasant place in which to live and to visit. And, finally, and most important of all, by positive measures, the program will assist in developing the human resources involved to their full potential—an objective which any nation has a moral, if not a selfish, obligation to achieve.

It should be recognized that some good works along the lines proposed have been in progress for years. However, such developments have tended to be few and far between. What is needed is a broad co-ordinated approach with priority given to the more poverty stricken areas which exist in every province. Now that the Senate Committee has made its recommendations on this phase of its investigations, the Federal Government should lose no further time in meeting with the provinces to work out the details of a forward and imaginative Rural Development Program for Canada.

Drop-outs

THE school term will be resuming shortly. Many of our young people will be deciding whether to go back to school, or to seek permanent employment. Before they make this decision, there are certain things they should consider. With their present level of education, what chance have they of becoming successful farmers, or, alternatively, successful workers in industry and business?

Let's take farming first. We need scarcely remind our readers that the impact of technological developments in farming has made this a complex and difficult business. The amount of finances involved and the important managerial decisions to be made, both concerning the farm and its association with the other sectors of agriculture, make it imperative that today's farm operators have a good education. Junior matriculation, supplemented with vocational training in one of our schools of agriculture, should be a minimum objective to enter farming in the 1960's.

It has been estimated that two out of every three farmers' sons must find their life's work in occupations other than farming. The importance of knowing the requirements of industry and business are, therefore, extremely important. Here again, owing to advanced technology and automation, basic education is required to understand the theories and laws involved in the production and maintenance of all the machines and products which we marvel at and enjoy in this complex age. Today, to learn a trade or skill, most youths need a junior matriculation or better.

THE Minister of Labor, the Hon. Michael Starr, pointed out recently that about 70 per cent of the jobs in this country today are of a professional, semi-professional, technical or skilled nature, and only 30 per cent of employment consists of semi-skilled or unskilled occupations. Mr. Starr indicates that most of

those with less than a junior matriculation will find themselves competing in this last category of employment. Moreover, the number of unskilled and semi-skilled jobs in the economy decreases with each passing year. This is an especially sobering thought when it is also estimated that about 70 per cent of the pupils enrolled in grade two in the 1959-60 academic term will leave the school system before receiving their junior matriculation if present trends continue.

A recent survey conducted by Iowa State College throws some additional light on this subject. It was designed to provide some information on how farm, small town and urban high school boys "stand up" with each other. While no differences showed up in actual basic abilities or participation in school activities, it was found that farm boys, as a group, have to "come from behind and catch up" with small town and urban boys in terms of job competition in urban settings.

The study showed fewer farm parents had definitely encouraged their boys to plan for further education, and that, probably as a result of this, fewer farm boys planned to continue their training, either of a business or vocational kind, or to go on to college. As a consequence, the study concludes, it appears as though young men from the small town and city may currently have an edge over farm youths—both in their educational and occupational plans, and in their hopes for them.

Farm youths and their parents need to think carefully about the conditions we have been describing. Just as our country has advanced in the past few decades, so our need for more education has increased. A full realization of this fact should go a long way toward solving the school drop-out problem and improving the nature of the working force. In addition, those individuals who attain higher levels of education will have a better opportunity to make a success of their lives.

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field-ready, priced to go... not stripped
down so-called "specials"! See your CASE
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CASE 800* SP COMBINES

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- 32" straight-through body with 32" cylinder.
- 10, 12 or 14-ft. headers.
- Completely *farm-proved* under Canadian conditions—outstanding in heavy crops!

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Complete with:
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• Lights • Straw spreader • Hour meter

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Pull-Type Combines
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- Full 7' cut, 426 strokes per minute sickle speed.
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(Engine-driven model illustrated slightly higher)
Complete with:
Cutting mechanism • Straw spreader
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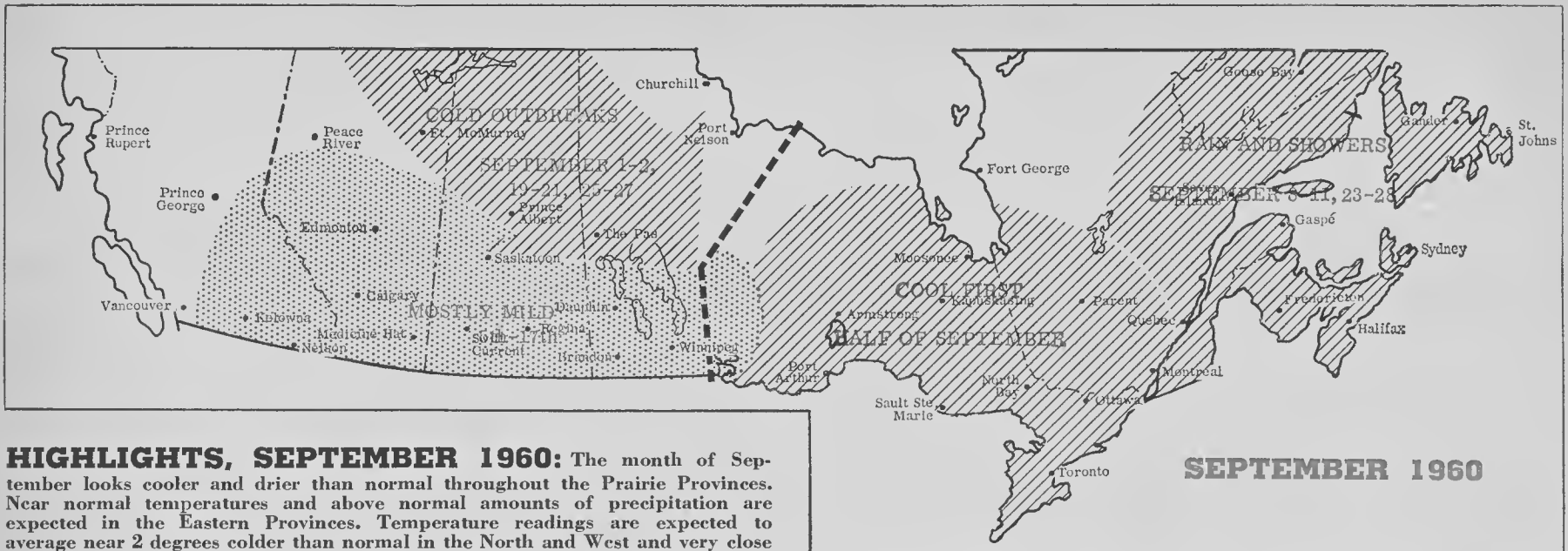
*NEW CASE LEASE PLAN

puts a brand new
800 or 80 Com-
bine on your farm
now — *without*
obligation to pur-
chase!

- Try out a new CASE Combine in this year's harvest—and pay only a nominal rental fee based on output of combine.
- Take until Oct. 1 this year to decide whether or not to purchase.
- If you decide to purchase, your rental fee will be applied against purchase price.
- If you purchase on Case Time Payment Plan, you have until Aug. 1, 1961, interest-free before starting payments.

Weather Forecast

Prepared by DR. IRVING P. KRICK and Associates

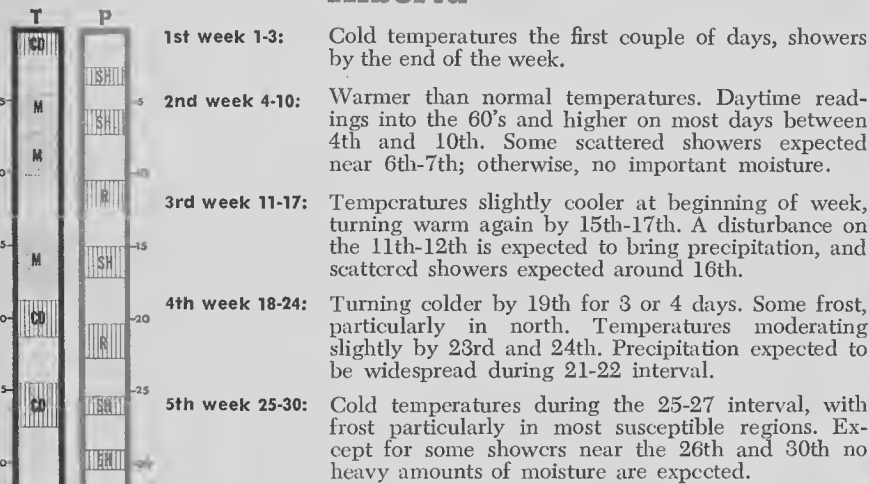


HIGHLIGHTS, SEPTEMBER 1960: The month of September looks cooler and drier than normal throughout the Prairie Provinces. Near normal temperatures and above normal amounts of precipitation are expected in the Eastern Provinces. Temperature readings are expected to average near 2 degrees colder than normal in the North and West and very close to normal elsewhere during the month. Total amounts of precipitation are expected to range near 75 per cent of normal in the West and 100-125 per cent of normal in the East.

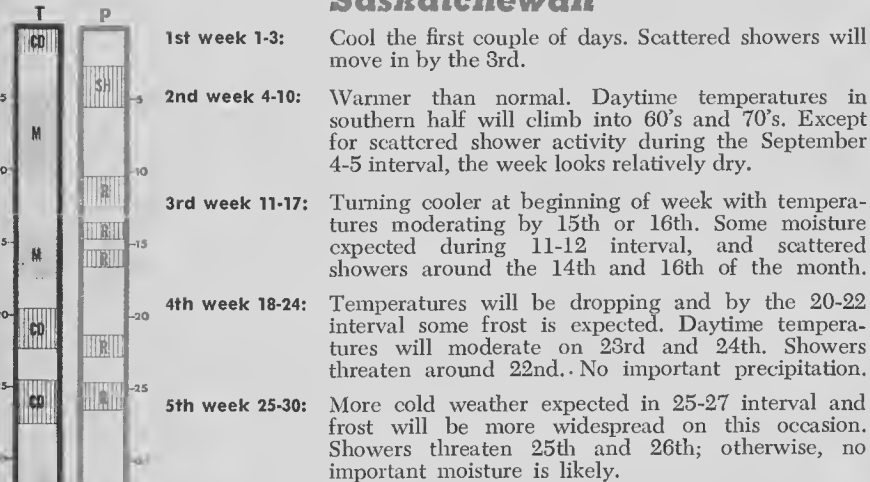
SEPTEMBER 1960

(Allow a day or two either way in using this forecast. It should be 75 per cent right for your area, but not necessarily for your farm.—ed.)

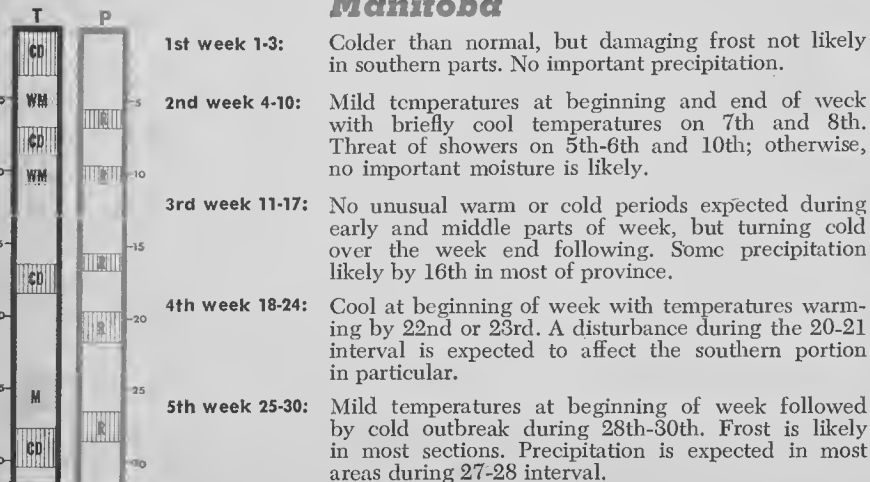
Alberta



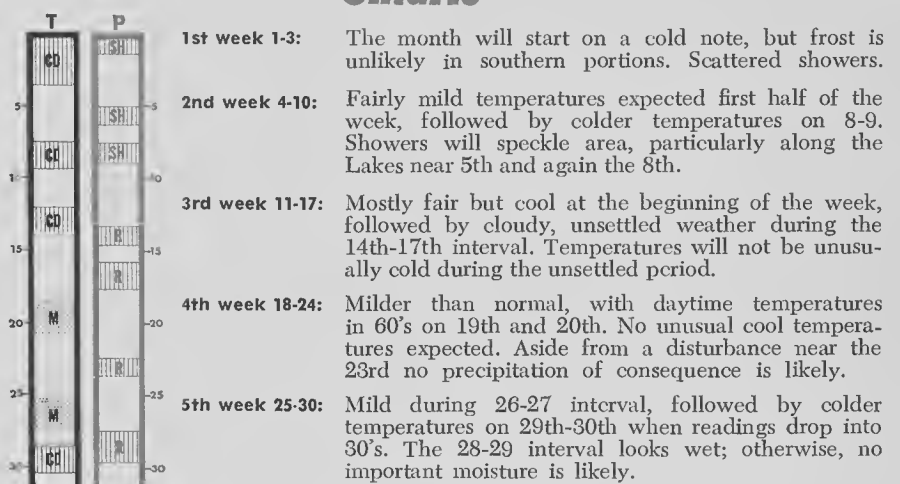
Saskatchewan



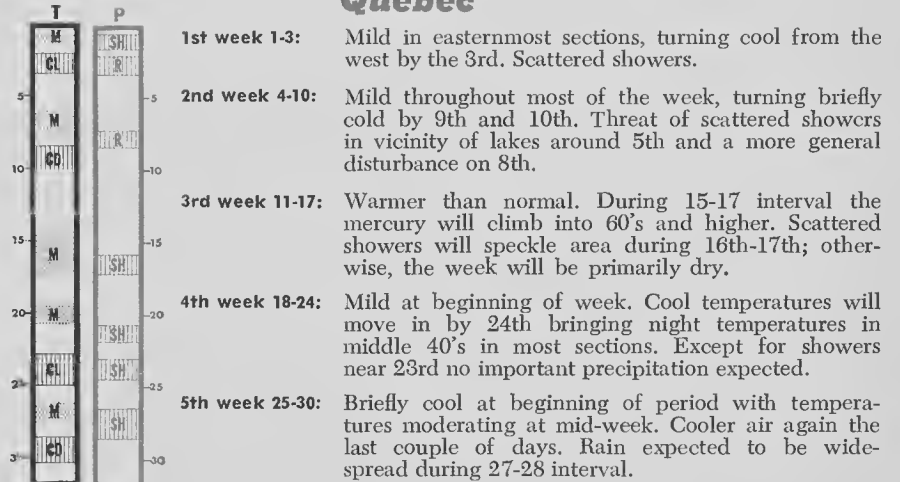
Manitoba



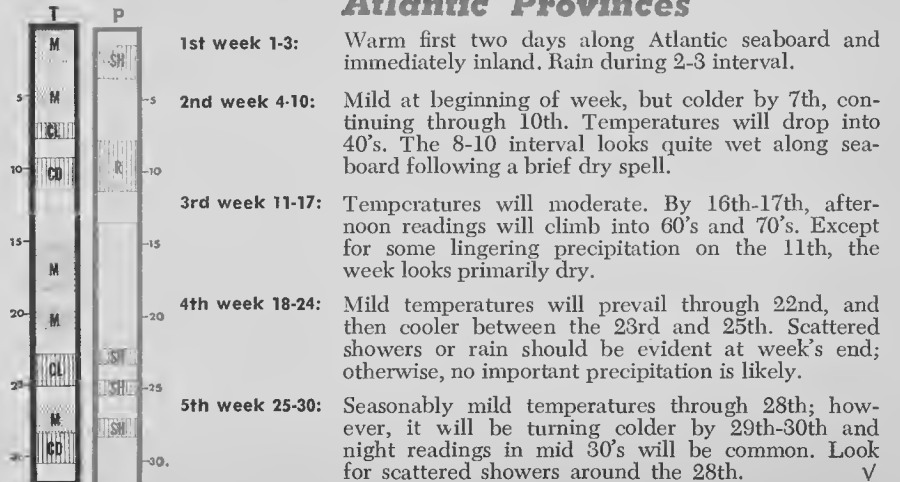
Ontario



Quebec



Atlantic Provinces



Letters

Still—Peanuts!

I read your editorial "Emergency Aid to Grain Growers" and still think that government aid to the farmer is just peanuts.

I was farming a quarter section. Under the acreage payment, I received \$110. How far does that go to meet the needs of the small farmer? Peanuts!

The other schemes? I received \$40 under P.F.A.A. for 1955 when I grew almost nothing and could not summer-fallow on account of excessive moisture. That is peanuts again, and a pittance.

The crop insurance scheme will be just as useless. The premiums will be as big as the benefits.

The government payments may amount to \$53 million, but to each individual farmer they are still peanuts.

A. F. POLLEX,
Portage la Prairie, Man.

Margarine: A Deceiver

In your editorial "Self-defeating Butter Policy," you leave much unsaid.

Butter is a legitimate food, margarine is not because it is made to imitate butter. No other food is allowed to interfere with the real, unless it is the soft drink.

What you left unsaid which is even more important is that everyone is responsible for the welfare of the soil, both city and country folk alike. The animals that supply butter reimburse the soil; margarine does not. It takes from the soil. Margarine is a deceiver, as are its manufacturers and promoters.

When in Isaiah 7:15 we read, "Butter and honey shall he eat, that he may know to refuse the evil, and choose the good," he also meant us to understand why we should eat these foods. Man has failed utterly to interpret this verse correctly. There are values in butter that no other food can supply. Its loss to humans is a loss for eternity: because anyone that does not, or will not understand, will be refused.

E. J. SHEARER,
R.R. 1, Indian River, Ont.

Vacuum Rate

It troubled me greatly to read the piece in "Dairying" (July issue) which states that a milking machine should be operated at 14 inches of vacuum. It is little wonder that some cows are injured.

I would suggest Mr. McNaughton investigate the Co-op Universal Milking Machine which is manufactured by National Co-operatives, Inc. of the U.S.A., and distributed by co-operatives in Canada. This machine uses not more than 11 inches of vacuum with a pulsation rate of 60 per minute.

L. DIERKHISING,
Bonnyville, Alta.

(The rate of 14 inches of vacuum was referred to because the majority of machines operate at about this figure. The point being made was to guard against excess vacuum by using a vacuum gauge. The important thing

to remember is to follow the rate recommended for the machine being used.—Ed.)

"The Quiet Place"

I wanted to write and say how much I appreciated your words in the July issue . . . under the title "The Quiet Place"—and what a beautiful picture to go with them.

I thought that your words conveyed something very wonderful, and something that is surely of vital importance to us all these days. What a need we see on every hand for that "inner strength" which, as you so truly indicate, I feel, comes in quietness and in confidence. It seems to me sometimes that we spend so much of our effort and time searching for rewards or happiness or whatever it may be, outside of ourselves, while overlooking that true comfort which may be found in "The Quiet Place."

CHRIS FOSTER,
100 Mile House, B.C.

Man Must Choose

I would like to express a warm appreciation for your editorial (Failure at the Summit) of June, 1960.

The clarity of your approach to the question of co-existence with World Communism is a real lift. We feel that the free world is in instant need to live and enunciate the inspired ideology of democracy. This is the only permanent answer for communists and capitalists, and all men everywhere.

I am sending you "Men Must Choose," a timely pictorial which I believe you will find of interest.

ERIC AND MARGARET LUND,
The U-Dot Ranch,
Borden, Sask.

Worthy Memorials

. . . I have been trying for some time to get a suitable nursery set of 4 chairs and a table for the Children's Ward in our new Municipal Hospital at Drayton Valley. The big stores in Edmonton do not carry suitable sets and apparently have not been able to obtain any. The set shown in the top picture (A Nursery School: July issue) looks as if it could be the very thing we want. Would you kindly give me information regarding where such a set can be purchased, a structural description and the price.

A few of the "Old Timers" in this district have been getting things for the Children's Ward in memory of an "Old Timer Neighbor." The chairs and table set is the next on the list.

MRS. A. GIDDINGS,
Violet Grove, Alta.

(We are endeavoring to supply the desired information—Ed.)

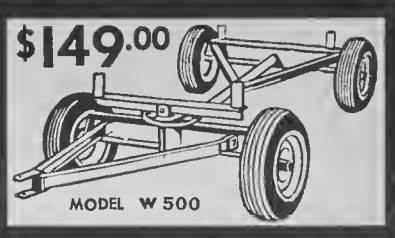
Crisis in Wheat

Canada was known as the granary of the world until the old government took the controls off and signed the International Wheat Agreement. We formed a combine with the United States to hold the price of wheat at (Please turn to page 50)

PRINCESS AUTO

YOUR BARGAIN HEADQUARTERS FOR FARM EQUIPMENT

ALL PRICES F.O.B. WINNIPEG



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COMBINE CHANGE-OVERS

\$140.00 per set

LOW PRICE, 5-YEAR GUARANTEE. 14-PLY NYLON, designed to carry 5 times your load capacity. The tires are 16" wide and 43" high. The wheels are all steel truck type. WHEN ORDERING GIVE MAKE AND MODEL AND NUMBER OF BOLT HOLES. Used 15.50x20 tires, Stock No. C-80. Per Set \$140.00
ITEM No. C81, same as above but mounted on narrow width truck rims. \$115.
CAN ALSO SUPPLY 17.00x16 10-ply, used. Set of 2 for \$155.

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New, Fully Guaranteed Angle-Bar Tread Rear Tractor Tires

Size	Ply	Tire	Tube
8x24	4	\$32.50	\$6.50
9x24	4	38.50	6.95
9x36	4	66.50	10.40
10x24	4	43.70	7.40
10x28	4	46.50	8.90
10x36	4	62.00	10.90
10x36	4	63.60	11.40
12x36	6	73.00	11.40
11x24	4	54.80	10.40
11x28	4	59.50	10.90
11x28	6	79.50	10.90
11x36	4	74.50	14.50
11x36	4	68.60	13.40
11x36	6	76.00	13.40
12x28	4	61.00	11.90
12x28	6	81.00	11.90
12x36	6	86.60	11.90
12x36	6	76.00	15.90
12x36	6	84.55	15.90
13x24	4	63.00	12.40
13x24	6	76.40	12.40
13x26	6	79.75	14.40
13x28	4	73.50	12.90
13x36	6	98.75	20.50
14x28	6	93.50	16.90
14x30	6	92.50	21.90
14x34	6	104.00	23.90
15x26	6	115.00	16.90
15x30	6	120.00	23.90
15x34	6	155.00	23.90
15x34	6	130.00	23.90

900x20 GRIP TIRES

\$27.50 ea. 50% TREAD. Take advantage NOW of a recent Government release to buy this popular size tire at a new LOW, LOW PRICE. Step up your carrying capacity. Tube to fit. Each \$4.00 SPECIAL, 4 TIRES, with Tubes \$100.

NEW NYLON AIRCRAFT SPECIALS

BRAND NEW 650x16 12-PLY Will Fit Drop Centre Wheels THE TOP \$\$\$ BUY for all 1/2-ton trucks. Can also be mounted on same type of wheels as used on cars, trailers and tractor fronts. Super Value. \$19.95
BRAND NEW 650x15 16-PLY Will fit 670x15 DROP CENTRE WHEELS. Excellent for wagons, front-end loaders, etc. Special Price. 4 for \$48.50
Tube 500x15 required due to heavy ply tire, ea. \$2.95

MILITARY TIRE SPECIALS

700x16—6 ply, 50% tread. Fresh stock. Special. \$13.75
700x20 BRAND NEW 4 for \$160.00

750x20 8-ply, plus 2 built-in shock pads (equal to 10-ply). Fresh stock. Medium tread. Will replace 700x20 if used in set. Grip tread non-directional. Each \$26.00 4 for \$100.00
900x16 8-ply, ground grip high tread, no patches or repairs. Use in place of 750x16 to increase carrying capacity. Special \$15.00 High Tread \$30.00

CARLOAD BARGAIN! BRAND NEW—1100x12 8-ply Nylon. Fresh stock. Each 4 for \$105.00 Used Nylon \$20; Used Rayon \$15 New Tubes \$5.00 each

RECAPPED SPECIAL for 1/2-TON TRUCKS 18-PLY 650x16 Nylon aircraft. Will fit drop centre wheels. "You just can't hurt this tire." ONLY \$24.50 2 for \$47.00
6-TON GARWOOD WINCH Complete with clutch, worm drive, ball bearing. Drum size: 1 1/2" diameter. Shaft extends to 27" long, 19" wide, 15" high, 1 1/2" diameter. Shaft extends 2" out of case. Less cable. Original cost over \$365.00. ONLY \$155.00 1/2" Used Cable, like new, per ft. 15c; in 200' lengths, per ft. 12c

SAVE \$\$\$ ON THESE TOP VALUE WAGONS AT LOW, LOW PRICES!

* BRAND NEW 5-TON

MODEL W-500 — New Full Circle 5th Wheel Steering. 5-ton hubs, standard heavy duty Timken Roller Bearings, 6-inch channel bunk. Pole reach extended to 10 ft. 2" steel pipe. Hitch extra heavy channel material. Good used tires 650x14—12-ply Nylon Aircraft width 6 1/2"; height 36". We guarantee to replace any tire free F.O.B. Winnipeg within 2 years. 4 wheels—extra width 12" all steel. The distance from the centre of the tire to the centre of the opposite tire is standard width 60". No sway, whip or weaving. SPECIAL \$149.00

* BRAND NEW 8-TON

1100x12 FLOTATION TIRES 5th Wheel steering, with friction plates. Extra heavy duty. Track 70" centre to centre. Construction—welded steel. Hitch—extra heavy duty tube. Reach—steel pipe, pole can be extended to 10' 2". Front axle—2" solid steel built up to 5" with channel. Bunk—38" between posts. Used 1100x12 Tires—2 piece all steel wheels. 8-ton hubs—Timken bearings. \$235.00

* 7-TON ALL-STEEL WAGON

MODEL W-700—Full Circle 5th Wheel Steering. 650x15 NEW 16-ply Nylon Aircraft tires. Tire 26 1/2" high, 6 1/2" wide, 15" all steel wheel. 2-year guarantee on tires. TRACK—60", AXLES—Sturdy 5" I-Beam. REACH: 10' pole, 2" H.D. steel pipe. HITCH: steel tubing. Approx. 700 lbs. \$198.00

* 10-TON EXTRA HVY. DUTY

MODEL W-1000—Feature 10.50x16 14-ply tires. Brand new full-circle 5th wheel steering, with friction plates to eliminate binding on turns. Welded steel construction, 60" track, 7" I-beam front and rear axles. Bunk 38" between posts, 2-piece wheels with 10-ton hub, HD Timken roller bearings. Weight with tires, 1,260 lbs. PRICE \$279.00

* 7-TON FORAGE HARVESTER WAGON WITH FLOTATION TIRES

FEATURES: Automotive steering, 1075x16 14-ply Nylon Aircraft Flotation Tires, 2" solid steel axles. Timken bearings all steel automotive wheels. Track 70" to outside of tires. Reach extendable from 12' to 17'. 75" hitch. Price F.O.B. Winnipeg \$249.00

HOISTS

BRAND NEW 10-TON HOIST

\$299.00 \$100 Down
FEATURES: GIANT 6" DOUBLE ACTING CYLINDER. Complete "TWO WAY" control of both push and pull action—in down position box is automatically locked—hoist can be stopped in any position and then raised or lowered by power.
● CYLINDER — 6" diameter (inside) — full 32" stroke steel ram.
● PUMP — Vane type with control.
● Complete with 12" top sills, heavy 6" channel iron suitable for wood sill replacement if desired. Drop hinge construction. Weight 806 lbs.
● Complete with mounting brackets, drive shafts, steady bearings, U-joints.
One Year Mechanical Guarantee. P.T.O. Extra \$25.50 (with hoist)

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CANADA PACKERS

Annual Report

The 33rd year of Canada Packers Limited closed March 30th, 1960.

The following is a brief summary of the year's operations:

1. Dollar Sales	\$575,892,000
Previous high—Fiscal 1959	\$541,416,000
2. Tonnage*	2,762,000,000 lb.
Previous high—Fiscal 1959	2,640,000,000 lb.
3. Net Profit	\$ 5,357,000
Previous high—Fiscal 1958	\$4,973,000

*The tonnage figure corresponds to the tonnage figures in previous years' reports and represents pounds of product sold by the companies primarily engaged in the packinghouse business.

The new high in Net Profit for the year resulted from relatively favourable operating conditions in the packinghouse business and at the same time satisfactory results in the Company's other fields of endeavour.

Net Profit expressed as a percentage of Sales was..... 0.95%

The Table below gives the record of Sales and Net Profits for the past ten years.

Fiscal Year	Dollar Sales	Net Profit	Net Profit as Percentage of Sales
1951	\$356,826,000	\$4,126,000	1.16%
1952	390,514,000	1,965,000	0.50
1953	385,986,000	4,400,000	1.14
1954	374,473,000	3,702,000	0.99
1955	363,551,000	3,717,000	1.02
1956	434,221,000	4,746,000	1.11
1957	467,188,000	4,507,000	0.98
1958	486,122,000	4,973,000	1.03
1959	541,416,000	4,735,000	0.89
1960	575,892,000	5,357,000	0.95
Average 10 Years	437,619,000	4,223,000	0.96

In respect of percentage of Net Profit, therefore, the year under review was almost exactly the same as the average of the last ten years.

For the 33 years since the formation of Canada Packers the corresponding figures are:

Average 33 years . . . Average Dollar Sales	\$226,300,000
Average Net Profit	2,376,000
Average Net Profit as percentage of Sales	1.05%

During the 33 years, reserves have from time to time been reported, which have not been recorded in the Annual Profits of the Company. These reserves include:—

- Wartime Inventory Reserve—set aside during the war and post-war period. These sums have been explained in the Annual Reports of the Company. These constitute the chief item in the reserves. In total they amount to..... \$6,000,000
- Sundry minor reserves accumulated from time to time throughout the 33 years.
- Increase in market value (above cost) of shares owned by Canada Packers in other corporations. Capital appreciation on these varies up and down with market fluctuations, but the reserve has become a substantial one.

Where applicable, full taxes have been paid on these reserves. They could properly have been treated as profits. The more conservative policy of carrying them as reserves has been followed. They provide a cushion against major price declines.

However, if all the reserves had been taken as profits, the average Net Profit for the 33 years would be 1.22% of sales—not 1.05% as appears above.

This is the measure of the Company's total profit. This is the net fee which Canada Packers has received for its services in processing livestock and other raw materials and finding markets for the finished products.

The Packing Industry has sometimes been criticized on the subject of profits. From some investors' viewpoint profits seem too low. From some producers' viewpoint profits seem too high.

That some margin of profit is necessary goes without saying. Without expectation of profit the large sums required for plant and working capital would not be forthcoming. Is the margin then too large or too small?

One answer is that it is much the lowest profit (as a percentage of sales) of any major industry.

How can the Packing Industry survive—and even prosper—on a margin of Net Profit (relative to sales) so much lower than that of other industries? The answer lies in the rapid turnover of capital. Capital employed in Canada Packers is turned over approximately nine times per year, so that a profit of 1% on sales is equivalent to a profit on capital of 9%.

Thus the Packing Industry operates at a profit that represents a very small percentage of sales and only a moderate return on capital.

Another characteristic of the Packing Industry (which has not been widely recognized) is that the Net Profit is a small fraction of the total expenses.

A packer's sales of \$100.00 are made up of approximately:—

Payment for livestock	\$ 79.00
Total expenses (including taxes)	20.00
Net Profit	1.00
	\$100.00

Total expenses are, therefore, about twenty times the Net Profit. This means that possible profit is easily dissipated by relatively small increases in expenses.

The intense competition in the Packing Industry keeps constant pressure on expenses and constant attention on improvement in efficiency. Any firm which falls behind in this respect does not survive long.

The foregoing comment on profits in the Packing Industry is not offered in a spirit of complaint. The business is demanding and intensely competitive, but for the successful firms produces a return on capital which is reasonable but not excessive.

The intense competition is a powerful stimulus to efficiency and serves the interests of both the consumer and the livestock producer.

From the livestock producers' viewpoint, Canada Packers' profit can be assessed as follows:

In the past ten years the Company's profit on all products (both meat products and by-products) derived from livestock has been 1/5¢ per pound of sales weight. This represents about 1/7¢ per pound on the live weight of the animals purchased.

Last year's Report mentioned the enormous increase in marketings of hogs.

This increase continued throughout the year and 8,568,217 hogs were marketed in 1959. This yearly number of hogs has been exceeded only once—in 1944, when everything possible was being done to encourage hog production for shipment to Britain.

The following Table illustrates this enormous increase in hog production. It shows the average weekly marketings of hogs in Canada for the past few years.

	Average Weekly Hog Marketings	Percent Increase or Decrease from Previous Year
Oct. 1/53 to Oct. 1/54	94,000	13.3% Decrease
Oct. 1/54 to Oct. 1/55	111,000	18.1% Increase
Oct. 1/55 to Oct. 1/56	119,000	7.2% “
Oct. 1/56 to Oct. 1/57	104,000	12.6% Decrease
Oct. 1/57 to Oct. 1/58	113,000	8.7% Increase
Oct. 1/58 to Oct. 1/59	159,000	40.7% “

The figures show a 41% increase in the year ending October 1, 1959, on top of a 9% increase the previous year.

The factors resulting in this enormous increase in hog marketings were reviewed in last year's Report. They can be summarized as follows:

- The preceding period of low hog marketings and relatively high price. However, similar market situations in the past did not produce nearly so large an increase.
- A very favourable hog—barley ratio.
- An abundance of feed grains.
- Increasing efficiency of hog production that has resulted in lower mortality losses and better feed conversion, resulting in lower feeding costs.
- The announcement in April, 1958, of an increase in the Federal Government floor price for hogs from \$23.00 to \$25.00 per hundred pounds dressed weight, basis 'A' grade hogs at Toronto. This completely protected the efficient producer against loss.

Under the other circumstances existing it became evident that \$25.00 per hundred pounds was an incentive price and would continue to encourage a very large hog production.

At this price level Canadian consumption of pork products was equivalent to about 127,000 hogs per week. In order to maintain the floor price the Dominion Government was obliged to purchase the surplus of marketings over consumption in the form of frozen pork cuts and canned pork meat.

These purchases began in October, 1958, and continued until January, 1960. During this period the Government purchased the equivalent of about 21% of the hogs marketed.

In March, 1959, the Minister of Agriculture announced a reduction in the floor price to \$23.65 per hundred pounds dressed weight (basis 'A' grade hogs at Toronto), to become effective October 1st, 1959. This price represents 80% of the previous ten-year average price, which is the level guaranteed by the Agricultural Stabilization Act.

In the spring of 1959 the Minister of Agriculture also announced a system of deficiency payments. On October 1st, 1959, it was announced that the deficiency payment plan would become effective on January 11th, 1960. This plan allows the price of hogs to reach whatever level the influences of supply and demand dictate and provides for later cash payments to producers to cover the difference between the national average price received for hogs over a year, and the support price. The deficiency payment plan applies only to 'A' and 'B' grade hogs, and payments are limited to a maximum of 100 hogs per year for each producer.

The announcement of these changes undoubtedly discouraged hog production. (The producers' decision to decrease hog production precedes the resulting reduction in marketings by about one year.)

The Table above showed that the average weekly hog marketings for the year ended October 1st, 1959, were 159,000 hogs. Since that time average weekly hog marketings have been as follows:

	Average Weekly Hog Marketings	% Increase or Decrease over the same Month of the Previous Year
November, 1959	174,000	7.5% Increase
December	168,000	18.0% “
January, 1960	171,000	3.5% “
February	149,000	10.1% Decrease
March	151,000	15.9% “
April	150,000	17.8% “
May	135,000	17.6% “
June	117,000	22.7% “

(Continued on next page)

CANADA PACKERS ANNUAL REPORT

(Continued from preceding page)

During the year under review the Canadian Packing Industry (as well as supplying consumer demand for pork products) has sold large quantities of frozen pork cuts and canned pork to the Government. These sales were made at prices negotiated by the Government with the industry, which allowed the packers a small profit.

The Packing Industry had the advantage of operating with a large and relatively steady throughput of hogs.

Since April, 1960, the Government has released their stocks of canned pork luncheon meat for sale in Canada at a price well below current replacement cost. This means that the canning operations of the Industry are closed and will remain closed at least until the Fall.

Government stocks of frozen pork cuts are being sold to the Packing Industry to be moved into consumption. These sales plus some export orders have reduced Government holdings of frozen pork cuts to a fraction of their peak.

However, forecasts of hog marketings this Summer plus Industry and Government stocks of frozen pork indicate a more than ample supply of pork between now and October. It does not seem that the current rate of consumption will use up the available supply between now and the Fall and if this is true lower pork prices will be necessary to increase consumption.

It is possible that the Canadian supply picture could be changed by a strong United States demand for pork resulting in export to the United States of substantial quantities from the Canadian supply. However, United States pork prices would have to advance considerably from current levels to encourage any substantial movement.

Inspected slaughter of cattle in Canada in 1959 was 6.1% less than in 1958. This decrease was due to a strong United States demand for feeder cattle in 1958 which reduced the supply of cattle available for slaughter in Canada in 1959.

The United States demand for Canadian feeder cattle was greatly reduced in 1959, leaving more cattle available for feeding in Canada. This has resulted in an increase in Canadian inspected slaughterings of 13.4% in the first five months of 1960.

Both in Canada and the United States cattle and calf populations continue to increase and are at an all-time high. This level of cattle populations indicates heavy marketings in both countries for the remainder of 1960 and for the next few years.

An interesting development in the Canadian cattle industry is the extent to which cattle feeding, with the resulting production of top quality cattle and beef, has increased in the last few years. This is evident from the increasing percentage of top quality cattle in the inspected slaughterings.

The following Table shows the yearly percentage of choice and good steers in the Canadian inspected cattle kill since 1956.

PERCENTAGE OF CANADIAN
INSPECTED CATTLE KILL

	Choice	Good	Total of Choice and Good
1956	19.4%	17.7%	37.1%
1957	21.6	16.9	38.5
1958	24.1	16.1	40.2
1959	28.0	17.3	45.3

An agreement with the Union (U.P.W.A.) was completed in April, 1960. This agreement runs until April 1st, 1962.

Directors report with pleasure that employee relations throughout the year have been harmonious and co-operative. Credit is due to employees of all ranks for the satisfactory result of the year.

W. F. McLEAN,
President

Toronto, July 1st, 1960.

Copies of this Report may be secured on request to Canada Packers Limited, Toronto 9.

What's Happening

MORE SUPPORT PRICES ANNOUNCED

Minister of Agriculture D. S. Harkness has announced support prices for sugar beets, soybeans and Ontario wheat, oats and barley under the terms of the Agricultural Stabilization Act.

Sugar beets produced in 1960 will be supported, by means of a deficiency payment, at \$14.23 per ton, for sugar beets yielding 270 pounds of sugar per ton. The prescribed price applies in the provinces of Ontario, Manitoba, Alberta and Quebec. It is 100 per cent of the 10-year average base price.

Soybeans delivered to elevators during the period July 1, 1960, to June 30, 1961, will be supported by means of a deficiency payment at \$2.00 per bushel for Canada No. 2 grade or better, 14 per cent moisture. This prescribed price is approximately 91 per cent of the 10-year average base price of \$2.20.

Ontario wheat, oats and barley will be supported at \$1.39, 57 cents and 79 cents per bushel, respectively, during the crop year July 1, 1960 to June 30, 1961. These prescribed prices are for Ontario No. 2 Canada eastern grade or better quality, basis on track at Ontario shipping points. The prescribed price for wheat is 82 per cent of the 10-year average base price of \$1.70 per bushel. In the case of oats and barley, the prescribed prices are 80 per cent of the 10-year average base prices per bushel of 71 cents (oats) and 99 cents (barley).

WHOLE MILK POWDER GOES TO 12 COUNTRIES

An initial donation of approximately 2 million lb. of whole milk powder is being made available to the United Nations International Children's Emergency Fund for immediate shipment to 12 different countries, Agriculture Minister Harkness announced in the House of Commons on July 15. He explained that this is part of the program for the utilization of surplus

dairy products. Because of its butterfat content, whole milk powder is one of the commodities most urgently requested by the international welfare agencies to assist them in carrying out their welfare programs, particularly in the underdeveloped countries.

ASK VETERINARY TRAINING FOR THE WEST

Meeting in convention at Waterton National Park, the Alberta Veterinary Medical Association requested the Alberta Government to re-consider its decision for the establishment of a Faculty of Veterinary Medicine at the University of Alberta. They asked that the Federal Government share in the construction costs.

(During the year, shortage of veterinarians was discussed in the House of Commons where it was pointed out that it'd take all the graduates of the two existing veterinary colleges for the next 5 years to merely fill the needs of the Federal Veterinary Service.)

Other questions dealt with were the unnecessary pain suffered by many animals during dehorning and castration operations by unskilled persons, poor sanitation and inspection facilities at some abattoirs, and the promiscuous use of potentially dangerous drugs.

The Association decided to offer its services to the Alberta Department of Agriculture for a public education program on more humane methods of dehorning and castration. They also urged the Alberta Dept. of Health to act on a 1954 report which showed poor sanitation conditions in abattoirs which handled about 20 per cent of the meat consumed in the province. Concerning the promiscuous use of antibiotics, pesticides and other potentially dangerous drugs by many persons unaware of possible harmful effects, the Alberta Association asked the Canadian Veterinary Medical body to study the present situation, which it feels isn't in the best interests of either the livestock producer or the general public.

MEAT PACKERS EXECUTIVE



H. Keith Leckie, who has been named Managing Director of the Meat Packers Council of Canada. He succeeds the late Earle S. Manning who passed away in April of this year. Mr. Leckie was born on the family farm in Lambton County near Sarnia, Ont. He is a graduate in economics and political science from the University of Western Ontario and holds a Master's degree from the University of Toronto. He served 7 years with the Economics Division, Canada Department of Agriculture, and 6 years with the staff of the Department of Agricultural Economics at the Ontario Agricultural College. He joined the Meat Packers organization in 1951. Prior to his recent promotion he was Secretary - Treasurer of the Meat Packers Council.

COLORING MARGARINE LEADS TO INCREASED CONSUMPTION

A study conducted at Iowa State University has shown that: "State laws prohibiting the retail sale of colored margarine are effective in restricting margarine consumption. The substantial increases which have taken place in margarine consumption (in the U.S.A.) relative to butter consumption can be largely explained by the fact that a number of states have repealed colored margarine prohibitions in the last 20 years. If the number of states prohibiting the sale of colored margarine had remained constant after 1935, it is estimated that the 1947-49 averages of annual per-capita butter and margarine consumption would have been 18.5 and 2.2 pounds, respectively. These figures contrast with the actual averages of 10.4 and 5.6 pounds, respectively."

HOW MUCH DO U.S. "FARM PROGRAMS" COST?

The Office of Budget and Finance in the United States has recently published a detailed tabulation of costs of various programs carried out by the U.S. Department of Agriculture. In this tabulation the Department's programs are divided into two major groups: (1) programs predominately for the benefit of farmers, and (2) programs having multiple benefits to the general public. The estimated costs of the various programs for the fiscal year end June 30, 1960, follow:

PROGRAMS FOR FARMERS:

Expenditures for the agricultural conservation program will be about 244 million.

(Please turn to page 48)



[E. W. Cadman photo]

Glendowan Royal Girl 2nd (L.) is Reserve Senior and Reserve Grand Champion at the National Ayrshire Show, Calgary, for W. H. Savage, Ladner, B.C. The Grand Champion cow is Woodlands Daisy 9th, owned by Richards Bros., Red Deer, Alta. Mrs. Francis Neil is presenting the Royal Bank of Canada Rose Bowl and Quebec's Deputy Minister of Agric., Rene Trepanier, the banner to O. Richards.

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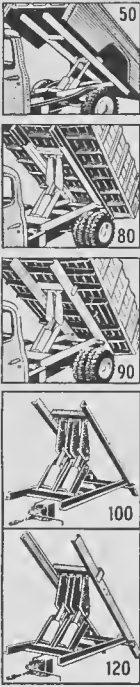
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What Farm Organizations Are Doing

LACK OF GOVERNMENT LEADERSHIP SCORED BY IFUC

The Interprovincial Farm Union Council expressed keen disappointment and lack of confidence in the Federal Government's ability to cope with the nation's economic problems at its joint board meeting in July. Referring to agriculture in particular, the Council indicated a total lack of confidence in the Government's action and decisions to meet the serious and continuing decline in farm income.

The IFUC believes the complete lack of responsible leadership shown by the Government in its dealings with the Western Liaison Committee can only lead to a condition of chaos. The Farm Unions recognize and have never minimized the dangers and problems posed by the continuing inflationary spiral, IFUC Chairman, Alf Gleave stated. However, since farmers form the group in our society which is least responsible for the condition, they can see no justification for delaying for more than 2 years any decision to deal effectively with a situation that, by the Government's own admission, has existed.

The Farm Unions have advocated from time to time that a national conference be arranged by the Government to study some of the economic problems, including that of inflation. In each case, the Government minimized the need for such a conference. In addition, some Government members have waged a campaign to discredit farm organizations in the eyes of the public.

"These events," the IFUC spokesman said, "do not show the type of leadership most people hoped and believed would be forthcoming from the present Government when it was elected to power in 1958."

PROTECTION FOR CANADIAN OILS AND CORN URGED BY OFA

The Ontario Federation of Agriculture has made a plea for tariff protection for Canadian soybean and corn producers. Representing the Ontario Soybean Growers' Marketing Board, the Ontario Commercial Corn Growers' Association and the Ontario Seed Corn Growers' Marketing Board, the OFA submitted briefs on the two commodities to Finance Minister Donald Fleming last month.

According to a report in The Globe and Mail, the brief on soybeans stated that Ontario production amounts to 6.5 million bushels, with a farm value of more than \$12 million annually. Imports into Canada from the United States are valued at \$45 million annually, and with the exception of \$3 million worth of soybean oil, they enter this country duty free. On the other hand, Canadian exports to the United States carry a duty of \$1.20 per bushel for soybeans and \$6 per ton for soybean meal. It was also noted that U.S. production of soybeans is encouraged by government subsidies.

The brief asked for a tariff on imports of all oil-bearing seeds, oil seed

meals and vegetable oils, because cottonseed, coconut, palm kernel and peanut oils and their source materials are in direct competition with soybean oil in Canada.

The brief held that the present one-way tariff is unjustified and has not been contested until now because of Canada's production. But now it has been established that soybeans can be produced economically in Canada and the acreage can be expanded to fill the need. It was pointed out that the young, growing soybean industry cannot survive under world programs of subsidized exports of oil seeds and their products.

The OFA brief on corn stated that Canadian consumption of grain corn runs to 40 million bushels, of which 27,125,000 are produced in Canada. Imports from the United States make up most of the balance. It was claimed that Ontario corn acreage has declined since 1955, and according to the OFA, this was due to the depressing effect of U.S. prices, which are subsidized by U.S. government programs in various ways.

MFU PROTESTS SHARP INCREASE IN HOSPITAL RATES

The Manitoba Farmers' Union has urged the Manitoba Government to reconsider its decision to increase hospital premium rates by 50 per cent, and to reinstate the former rates which applied under the province's hospital insurance program.

The MFU presented these arguments in support of its requests:

- Families living on less than \$3,000 annual income, including a vast number of the farm population, will find it impossible to pay the increased rates without lowering their present standard of living to a subsistence level. Some 800 delegates at 12 MFU District Conventions across the province took a unanimous stand against the drastic increase in hospital premiums.
- The increase in premiums places the Manitoba citizens in a position where their hospital premiums are the highest in Canada. In fact, Manitoba premiums are more than double what people are paying in certain other provinces.
- It is questionable whether higher hospitalization costs — the reason given for the higher rate — will materialize in each succeeding year as forecast. Even if such higher costs should materialize, the increased rates the Government put into effect will yield more revenue than is needed to cover the anticipated deficits. For example, in 1960 the increased rates will produce 6 million dollars for the program to cover an anticipated increase in costs of \$1.8 million.
- Hospital costs in Manitoba shouldn't be any higher than they are in Ontario where the Ontario Government is anticipating only a 10 per cent increase in rates.

In addition to these arguments, the MFU expressed the view that much of the criticism of the increased rates

could have been dispelled had the Government held public hearings of some type prior to their implementation. The MFU suggested that no increase in rates should have taken place without the general public having had an opportunity to express a viewpoint.

Manitoba hospital insurance rates were increased from \$24.60 to \$36.00 per year for a single person, and from \$49.20 to \$72.00 per year for a family.

FUA OPPOSES CHANGE IN FEED MILL BUYING REGULATIONS

The Farmers' Union of Alberta, in a letter to the House of Commons Standing Committee on Agriculture and Colonization, protested against any relaxation of Canadian Wheat Board regulations in regard to feed mills buying direct from farmers.

The FUA pointed out that one of the feed companies in asking for the privilege of buying feed grain direct from farmers, used the example of registered seed being sold outside of Wheat Board operations, as a precedent to justify its request. In the hearing it was admitted that registered seed was often bought for less than the Wheat Board's initial price. This, the FUA claims, would indicate that feed grain would move to feed mills at a lower price. Relaxing the regulations could, therefore, work to the disadvantage of grain growers who are already selling grain below the cost of production.

The FUA reminded the Committee that growers had for many years looked for some method to market their grain which would overcome the inherent weakness of the open market system. Even though surplus production has created new problems, the Union argued, the grain grower does not wish to take the backward step that would result from any relaxation of controls at this time.

MFA CONDEMNS REQUESTS FOR MORE TARIFF PROTECTION

The Manitoba Federation of Agriculture, in a letter to Prime Minister Diefenbaker, has strongly condemned attempts being made in some quarters to persuade the Federal Government of the need for more protection for Canadian automobile manufacturers against imports from the United Kingdom and other overseas countries.

The letter noted that farmers were genuinely concerned by general and persistent requests for increased protection, coming in many instances from industries already enjoying adequate tariff protection, especially since in almost every case it was agriculture which suffered from the results upon our economy.

"We base our protests on the assumption that such increased restrictions . . . would, in fact, operate only to the benefit of a favored few and to the detriment of the majority of Canadian citizens and industries, not only by forcing Canadian consumers to pay higher prices . . . but also by preventing those domestic industries (including agriculture) which can compete price-wise in overseas markets from being able to do so because of the shortage of Canadian dollars in foreign hands."

(Please turn to page 48)

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GUIDEPOSTS

UP-TO-DATE FARM MARKET FORECASTS

HOG PRICES will remain firm this fall. Farm hog inventories were down a significant 20 per cent at June 1, but we will soon reach bottom in numbers as breeding sows are being held back and expected farrowings this quarter are a bit above a year ago.

TURKEY PRODUCERS should escape worst of last season's devastating low prices. Light turkeys are maintaining normal price for this period, while number of heavy birds to be absorbed this fall is expected to be down substantially.

CATTLE PRICES have a strong undertone. With relatively few ways to maintain income, cattle continue to be attractive, especially with our abundant feed grains and good quality hay this year. Big "if" is progress of cattle cycle in U.S., where output from rapidly increasing herds is beginning to show.

RAPESEED ACREAGE had no trouble establishing an impressive new record on Prairies this spring. Crop is well on way toward establishing a permanent position as a cash crop but a lot of hard merchandising is required to build markets in highly competitive oils and fats field.

BROILER PRICES will remain reasonably profitable this month as consumers search for meat bargains. Although basic demand continues strong, use caution to avoid oversupplying fall market.

WHOLE MILK POWDER production is shooting skyward in response to government policy of diverting some milk from butter. As a result butter output declined 1 per cent in June compared with a year earlier, but this is not enough to take much pressure off butter.

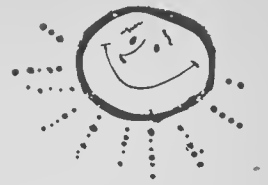
U.S. CORN CROP again will likely top 4 billion bushel mark. Prices will be pressed down and competition from commodity keenly felt on world feed grain markets again this year.

ANOTHER DEFICIENCY PAYMENT for eggs looks more certain as year runs out in September and prices are slow to rise... but amount will be quite small.

POTATO PRICES have dropped rapidly in response to heavier summer supplies. With increased acreage planted this spring and generally good growing prospects, last season's high price levels look pretty remote.

SOYBEAN ACREAGE in U.S. is up slightly this year but because of slow growing weather crop was off to a shaky start. A crop only slightly smaller than last year's could have quite a steadying effect on world oilseed markets.

FEEDER PRICES will soon start normal autumn decline but undertone will be firm. Higher pork prices and fewer poultry bargains will bolster beef prices.



hot itchy feet?

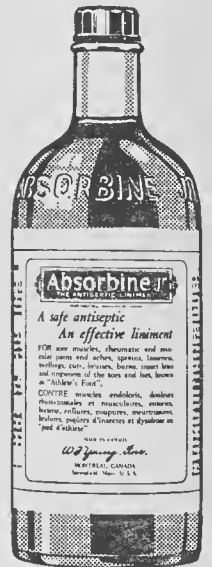
Be wise! At the very first sign of raw, cracked skin between the toes... apply Absorbine Jr. promptly! That cool, tingly sensation you feel means Absorbine Jr. is busy killing all the Athlete's Foot organisms it reaches. So remember to keep your feet healthy and comfortable with Absorbine Jr. Available wherever drugs are sold.

It's Athlete's Foot weather...
time for

ABSORBINE JR.

Canada's No. 1 Formula for Athlete's Foot

W. F. Young Inc., Montreal 19, P.Q.



Canadians who fish...



Canadians who don't fish...

Canadians

in

every

walk

of life

like

saving

at... "MY BANK"



You, too, will like saving at the

BANK OF MONTREAL

Canada's First Bank

... thinking about
**FINANCIAL
SECURITY**
for your family?



Farmers across Western Canada are now joining a completely new and different Group Life Insurance Plan offered by United Grain Growers. Discerning and selective in whatever they buy, these farmers recognize the exceptionally fine values of this coverage.



- **LOW annual Cost of \$47.50 – advantages and economies of group buying at work**
- **Benefits specially designed for the farmer – most protection when need is greatest**
- **Paid-up insurance, or Cash, on termination**

The wise farmer realizes that the U.G.G. plan is MORE than low-cost group term insurance protection for his family. Unlike most group insurance plans, it offers him Paid-Up Insurance, or a Cash Surrender Benefit on termination — assures him of **getting something back.**

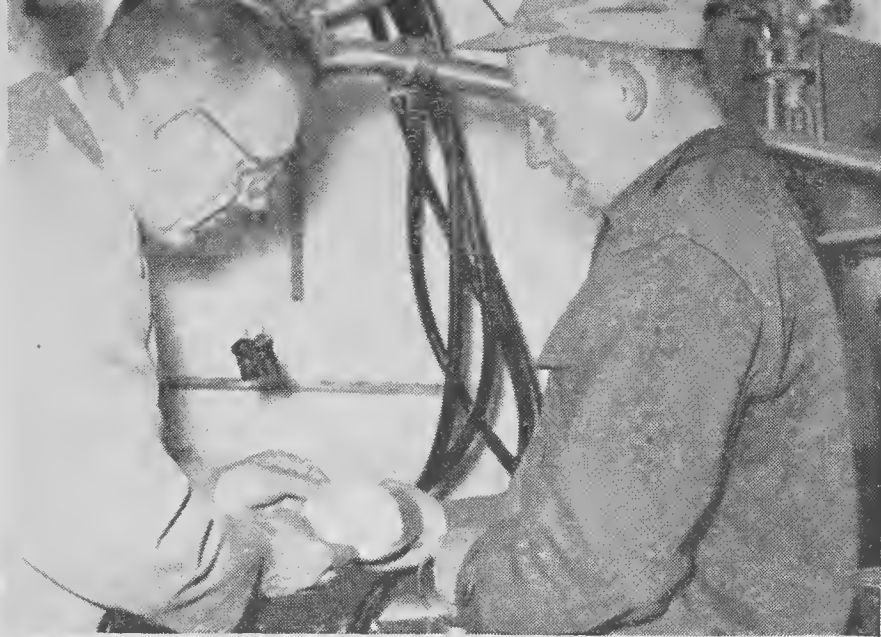
EXAMPLE OF BENEFITS				
age at entry	until age 60	age 61	age 63	age 65 and thereafter
20	\$8,280	\$6,624	\$4,968	\$2,137
30	5,730	4,584	3,438	1,662
40	3,580	2,864	2,148	1,187
50	2,100	1,680	1,260	712
59	1,340	1,072	804	285

Benefits are doubled if death is accidental.

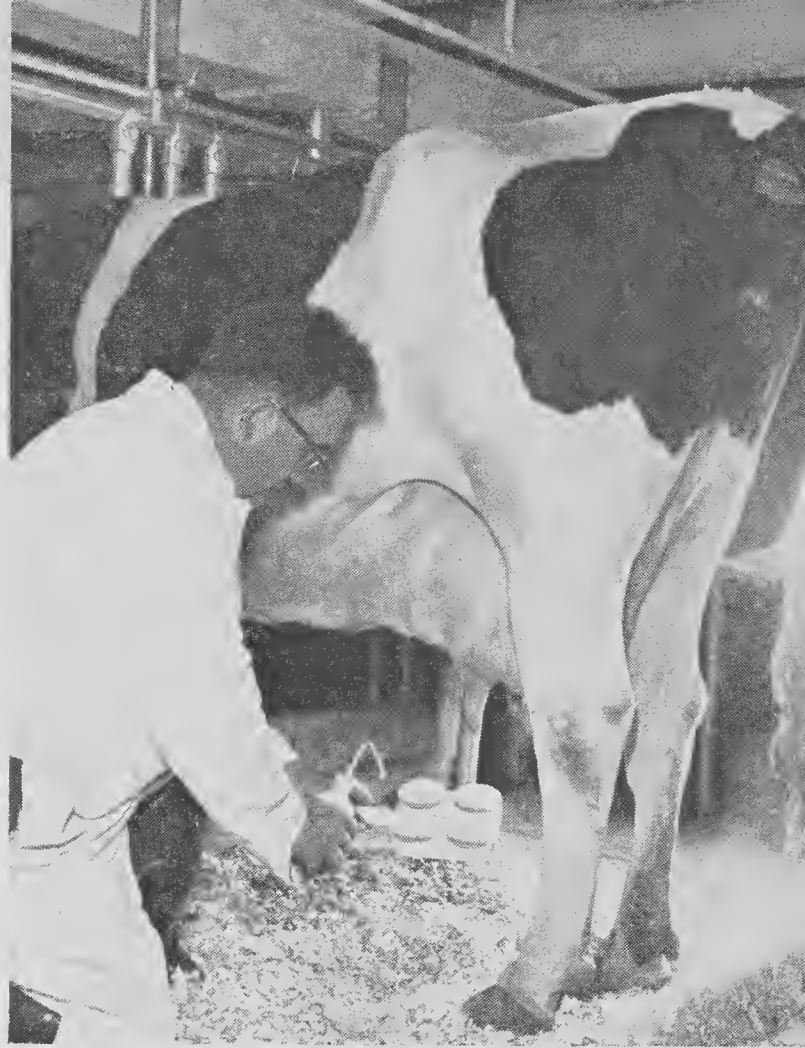
The U.G.G. elevator agent in your community will be pleased to discuss the plan with you—**See him today.**

UNITED GRAIN ROWERS
LIMITED

The plan is underwritten by The Great-West Life Assurance Company



"This frequent testing program can catch infection before milk plugs up our machine filters." Walter Devereux (right) is explaining to Dr. G. R. Doidge.



Simple but sensitive California test being carried out by Dr. H. J. Neely, of Ontario Veterinary College, to identify infections early.

They Beat Mastitis

Dairy farmer Harry Wilson calls it the best development to hit dairying in years

RELIEF may finally be in sight for dairymen plagued by the industry's number one disease problem, mastitis. Dairy scientists have seized on a new quick and sensitive test that can be made right in the cow stable to identify infections long before they would show up on the strip cup. They have tied this in with a laboratory testing program. And by recommending some new milking and cow management practices, and some old and often neglected ones too, they have come up with a plan that is beating mastitis on farm after farm.

It's an inexpensive, practical program that can put any dairyman in the driver's seat in dealing with this disease. Thus far its most spectacular use has been in Kent County, Ont. Every one of the 124 dairymen shipping fluid milk to towns there has brought his herd under a county-wide program. In 5 years, infections have been slashed, from over half the milk samples tested, to less than 5 per cent.

by **DON BARON**

Dairyman Harry Wilson, who cleaned up the disease in his own herd, calls it the best development to hit dairying in years. He recalls that the disease was on the verge of beating plenty of dairymen in his district before they went onto the program. In his own herd, as many as half the cows were infected at once. The disease was spreading back and forth, through the herd, despite his best efforts to control it.

Walter Devereux of Ridgetown is another dairy farmer who is sold on the program. It has worked so well on his 40-cow herd that he has stepped up his testing program, and sends samples to the laboratory every 2 weeks instead of every 6 weeks.

"If you wait for thick milk to show up in the strip cup, damage has already been done to the cows, and the infection has probably spread through the herd," he says. "To make matters worse, you've been shipping bad milk to market."

He believes frequent testing of each cow is the only answer. That, tied in with good management, can control the disease.

The Kent County program has worked so well that health officials in neighboring Lambton County are planning a similar program for herds shipping milk to their markets. The city of Chatham is falling in line too.

THE program looks so promising that veterinarians across the country are beginning to carry equipment to do the new California test in the stable of any dairyman. This new test is so sensitive that it will pick up an infected quarter long before the thick milk or a swollen udder will tell the dairyman about it. It will pick out carrier cows too. And it's simple. In making the test, the veterinarian squirts a sample of milk from each quarter into one of the four compartments of a little white plastic tray. Then, he adds a purple solution and judges the degree of infec-

tion of any quarter by the amount of coagulation noticeable to the naked eye.

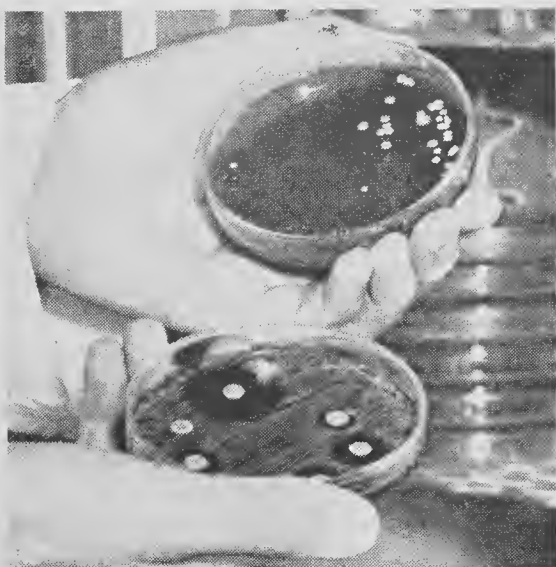
Provincial veterinary laboratories like the ones at Guelph, Ridgetown, and Kemptville, in Ontario, and others across the country, have installed equipment so they can do cultural tests on milk samples that show up positive in the California test. Once these are completed, a veterinarian can recommend specific antibiotics that will knock out each infection.

The program has been developed none too soon. Cost of the disease to dairymen in shipping ruined cows to market; in raising replacement heifers; in buying drugs; and in dumping milk from infected quarters during treatment, has reached frightening proportions. Even so, the disease is probably costing most dairymen more money than they realize, for it is often well advanced before it shows up in the form of thick milk. It can remain undetected in a cow's udder for days.

Since standard bacteria tests normally done by dairies won't identify mastitis organisms, milk that is full of pus in the early stages of infection will probably be accepted at the dairy. When the Ontario Veterinary College surveyed 28 herds which owners believed to be almost mastitis-free, over 28 per cent of the quarters sampled were infected. Dr. Don Barnum, mastitis specialist there, believes these herds were typical of herds across the province.

THE program that has brought mastitis under control in Kent County was initiated 5 years ago. Prior to this, milk sample testing at the provincial government's Ridgetown laboratory showed that mastitis had an astonishing hold on herds. To combat the disease, Dr. G. R. Doidge, veterinarian in charge there, and county health veterinarian Dr. Everett laid out a program of regular herd testing. They used public health regulations to persuade dairymen to put their herds on it.

Here is how the program works. Bottles in which to take milk (Please turn to page 33)



The samples from infected quarters are cultured for more exact diagnosis and sensitivity tests.



Rockhounds and Pebble Puppies

Rockhounds never die, they slowly petrify

by CLIFF FAULKNOR

*Larry Duncan setting
some of his finished rock specimens.
They make up into beautiful jewelry.*

ASURE way to beat the rocks on your farm is to join a rock collector's club. Then you just invite your fellow members out for a rock hunt some week end. You might run into a bit of trouble here, though. Once you start looking at those rocks of yours through a collector's eyes you are liable to catch the fever. You won't want to part with them. In fact, you will probably begin to lug home rocks from all over the country until you have a lot more than you started with.

Collectors call the disease "rock pox," and it's quite incurable. Mainly because nobody is very interested in finding a cure. In its advanced stages, the victim gets himself a set of machines and begins to cut and polish his "finds." Often a cut through what appears to be an ordinary, or garden variety of rock reveals a wealth of hidden beauty. Once the victim has glimpsed this inner world he is hooked. Soon, his basement becomes filled with rock specimens, then the yard outside. On his fingers he wears the badge of his affliction—a more-or-less permanent set of band-aids.

THERE are "rockhound" clubs in many parts of Canada. In Alberta, the largest is the Calgary Rock and Lapidary Club, with 300 members drawn from all over the province. They represent a wide variety of occupations, including 10 geologists and about 60 farmers. All you need to qualify is a keen interest in the earth as God made it.

One rural member described the feelings of most rockhounds when he said, "I've been picking these things off my land all my life, but I never took the time to really look at them."

"Most of us are like that," Calgary Club president, Larry Duncan, agreed. "We're so busy

rushing about we don't even see the natural beauties that lie about us."

To prove his point, he displayed a fantastic collection of ornamental stones—eye agates, jade, sapphires, pink manganese. Some were just shaped and polished, others cut to standard jewelry forms and mounted in bracelets and brooches. A box of small oval pebbles, polished until they sparkled, looked like a collection of jeweled bird eggs.

"Most of these were picked up within a few miles of here," he said, indicating the latter.

At a modern art display recently, the lecturer was taken aback when Larry snorted disgustedly. "These aren't the work of a creative artist, they're just imitations. God is the only truly creative artist."

Asked to elaborate, he handed around several thin slices of rock that he'd cut with his diamond-studded slab saw. On each piece, natural stainings had etched a series of pictures and designs many modern artists would be happy to sign their names to. Placing a bunch of the slabs on end, he indicated the rock's unpromising looking exterior.

"On the outside just an ordinary rock," he said, "but inside, a whole art gallery. We haven't even begun to tap the beauties of Nature."

That is one of the thrills of being a rockhound. Often you don't know what you've got until you cut into it.

One of Duncan's pet peeves is that we Canadians tend to ignore our natural heritage. Too often, we leave it to others to discover wealth that lies right under our noses.

Larry Duncan began to take note of Nature's world as a farm boy in his native Prince Edward



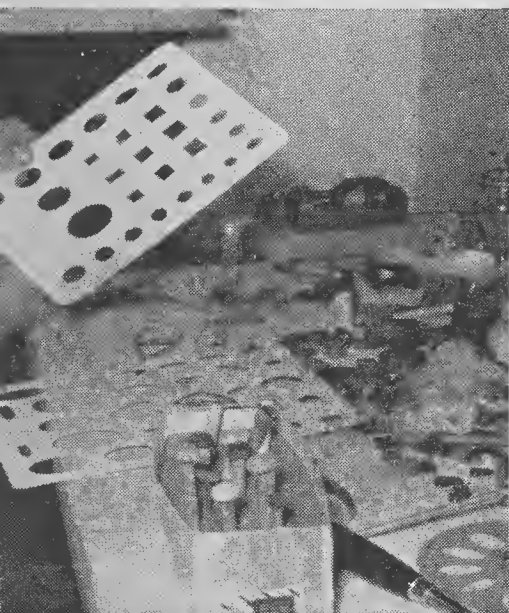
*[Guide photos
Know what these are? They're camel shoes found in
Cariboo gold rush country where camels were used.*

Island. When still in his 'teens, he rigged up a grappling outfit from a set of discarded lobster gear and went after rare seaweed specimens from the 500-foot depth. He still has these today, mounted on sheets of white paper. Some of the specimens are so fine your fingers can hardly feel a thing when you rub them on the paper.

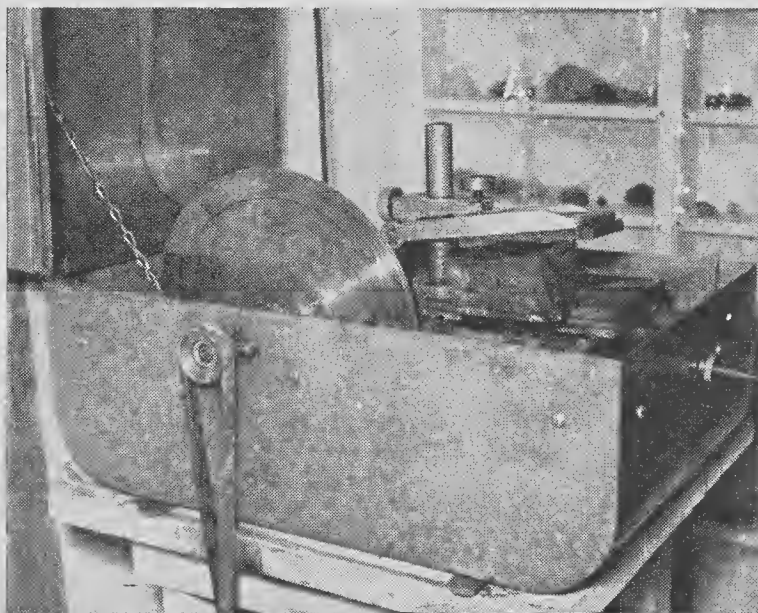
Larry has worked at many occupations all over the North American continent, most of them to do with oil or mineral discoveries. Some of his finds later turned out to be moneymakers, many more proved to be only temporary producers. It didn't matter to Larry one way or another. He was more interested in discovering mines, than working them.

"I don't believe in staying on any job until I get bushed," he said, by way of explanation.

Today, Duncan divides his time between an accounting business and rocks, with the rocks getting the better of the bargain. He's rated as a first-class geologist (Please turn to page 34)



*Stones on sticks are ready for polishing.
Cards are used for shaping and sizing.*



*Diamond-studded slab saw and piece of rock ready for cutting.
Safety cover comes down over saw when Larry is operating it.*



*These rock "slices" reveal picture-like
designs caused by natural discoloration.*

**Left:**

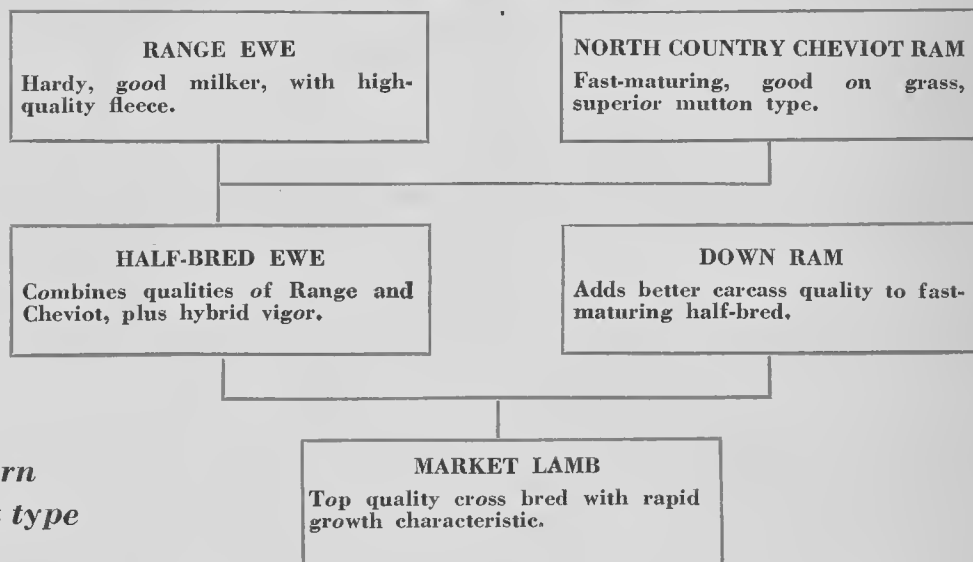
• This North Country Cheviot ram sired most of the half-breds from range ewes in the MacGregor district of Man.

Right:

• Two of the original range ewes with half-bred ewe and lambs sired by North Country ram on Neil farm, MacGregor.

The Townsend-Scotchmer Plan

The Three-Lamb Stage



Here is a scheme that could link western and eastern farms in the production of a new crossbred market type

SOMETHING new in crossbreeding and a plan for Canada's sheep industry may result from an idea shared by Ted Townsend and Harold Scotchmer. Anyway, they are putting it to the test. Ted is now special representative for the CPR at Winnipeg and a farmer; Harold is district superintendent of the Livestock Products Service of the Canada Department of Agriculture at Winnipeg. They are also president and secretary, respectively, of the Assiniboine North Country Sheep Association.

The Association's purpose is to breed North Country Cheviots and to use the North Country rams on range ewes. This will produce a half-bred ewe to be bred in turn to a Down ram. The result can be a new and better type of market lamb.

Back in 1956, some range ewes were brought into the MacGregor and Graysville districts of Manitoba, and were divided into groups of 5 for 4-H Club work. The ewes were 5 and 6 years old and unattractive on arrival, but they came back quickly under Manitoba conditions. Most of them were bred to North Country Cheviot rams supplied by the Canada Department of Agriculture and there are now some impressive flocks of half-bred ewes. These half-breds are a faster maturing and better mutton type than the original range ewes, and they have the added advantages of hybrid vigor, with a high lamb survival rate.

At the same time, a fair number of carloads of these older range ewes have been going to Ontario for the production of crossbred market lambs. Farmers have been reasonably satisfied with the results, but they have been using all kinds of crosses and could probably do better. This is the point where the Townsend-Scotchmer plan comes into the picture.

LAST year, Ted Townsend went to Britain, where he came to the conclusion that the crossbreeding is superior and could be adapted to the sheep industry here. What impressed him most was that, during the past 20 years, British farmers have developed a pattern of breeding which now represents by far the most important

by **RICHARD COBB**

part of their sheep industry, and the show ring has very little influence on it.

The foundation is the indigenous sheep, which in the U.K. means hill sheep like the Welsh Mountain, Border Cheviot, Blackface, and especially the North Country Cheviot. These hill breeds live in extremely rugged conditions, where they must be good foragers and have lambs that can get up and start sucking almost immediately after birth. The ewes have to be good milkers to bring the lambs through, so these breeds make good use of feed and grow fast, and can pass these characteristics along. But when the hill sheep are brought down to good pasture they do not perform so well and are prone to develop such ailments as pulpy kidney.

This leads to the next phase. The hill ewes are bred mostly to Border Leicesters, a "soft" sheep but a good milker and mutton type. This brings the hill sheep a step closer to market type. The half-bred ewes are then shipped to the better grassland regions in huge numbers by triple-deck trucks. They go into farm flocks and usually are bred to Down rams, such as the Suffolk, Oxford

and Dorset Down. The result is an excellent market lamb.

It is interesting to note, says Ted, that very few of the farm flocks are self-replenishing. The farmer buys all the half-bred ewes he can handle and keeps them about 5 years. He markets all the lambs, both male and female. He finds that if he keeps any for breeding he will get mongrelization, and what is more important, loses the sale of a ewe lamb when it is worth most on the market.

The hill farmers usually buy their Border-Leicester rams and run them with the hill ewes in flocks of about 500 to 750 ewes per shepherd. These produce the half-breds which are not sold to farm flocks until they are shearlings, and normally go through big centralized sales of up to 30,000 ewes at a time.

TED considers that the Canadian range ewes of Alberta, Saskatchewan and B.C. are in a similar position to the hill sheep of the United Kingdom. They live under rigorous western conditions and have to be able to take it. They are hardy, excellent milkers, good on grass and have a dense, high quality fleece. These characteristics are heritable.

The idea is to bring (Please turn to page 34)

• Half-bred ewes with their crossbred lambs on the McQuistern farm. Ewes were bred to a Shropshire ram. Lambs are the end product of experimental three-stage system.

[Guide photos



What it's like to be

RETIRED FARMERS

by KATHLEEN STRANGE

RETIREMENT is a word that does not loom large in the farmer's plans. Many farmers, in fact, go on working till the end of their days. They actually die "in harness."

Those who are fortunate enough to be able to enjoy a few years of retirement, however, with some time to "loaf and enjoy their souls," seldom do any loafing. Indeed, most retired farmers I find keep almost as busy in retirement as they were on the farm, and often at interests not too far removed from the farming field.



Albert Loveridge

I asked my old friend, Dr. Seager Wheeler, what he had been doing since he retired from his farm at Rosthern, Sask., some 13 years ago. As a grower of prize-winning wheat, oats and barley, and the originator of new strains, Dr. Wheeler won an international reputation. In fact, the value of his contribution to the agriculture of Western Canada can hardly be estimated.

Dr. Wheeler told me that after 60 years on the farm he decided to move to B.C. With his wife, his eldest daughter, May, and his youngest daughter, Beth, he has been living on Linden Avenue in Victoria ever since.

For several years after his retirement, Dr. Wheeler's main interest was his garden and, until a year ago, he was able to prepare and plant it

himself. Now, on account of age and stiffness—he is 92—he leaves the work of the garden to his daughter May. He is still able to walk around it, however, and enjoy it. He often talks of walking down to the sea, he says, but talk is as far as it goes, for the sea is five blocks from his house—just a little too far!

Dr. Wheeler does a great deal of reading and has a varied taste in books—historical novels, westerns, adventure stories and Christian reading, including, of course, the Bible. He is still able to read without the aid of glasses.

With one exception, Dr. Wheeler and his wife have been back to Rosthern for a visit every year. (His second married daughter and her husband run the farm for him.) Although he admits that Victoria is a nice place in which to live, with a most agreeable climate, he has found himself longing more and more to be back on the farm. He would like to spend his remaining years there, "walking about my own grounds and enjoying the clean country air." Time alone will tell, he says, whether this desire will be achieved or not.

ANOTHER good friend, Dr. Howard P. Wright, who formerly farmed some 4½ miles northwest of Airdrie, Alta., retired from his farm in 1945 and went to live in Calgary. While on his farm, Dr. Wright achieved considerable fame as a seed grower and was honored with the title of Master Farmer. He was also president of the Canadian Seed Growers' Association for several years. He still has a warm interest in farming and retains a half section of land.

I asked Dr. Wright how he fills in his time now that he lives in a city. He replied that he finds more than enough to do, having interested himself particularly in community affairs. Chief among his many interests are the Calgary Hospitals Board and the Associated Hospitals of Alberta. He has also been trying to create an interest in the development of a Chronic Hospital under the new Alberta Hospital Insurance Plan. In addition, he has been actively associated with such organizations as the Salvation Army, the Y.M.C.A., the Canadian National Institute for the Blind, etc. The problem, Dr. Wright says, is to keep away from taking on too many things!

Besides these interests, Dr. Wright is active in church work and spends a good deal of time at gardening. He specializes in gladioli and dahlias and has many hundreds of each. He has a son and daughter living in Calgary, too, and likes to spend as much time with them as possible.

Dr. Wright suggests that no one need be idle in retirement—there are so many things that need doing!

OUR friend, Mr. F. W. Townley-Smith, who farmed 3 miles west of Lashburn, Sask., for 45 years, retired in 1947. Mr. Townley-Smith, with his family, came from England to Canada with the famous Barr party in 1903. During his years as a seed grower he attained many honors and distinctions, among them the presidency of the Canadian Seed Growers' Association and other agricultural organizations, both local, provincial and national. He was also a Member of Parliament for North Battleford from 1945 to 1949 and



Dr. Howard P. Wright

is still interested in politics "in a general way" and always, of course, with the farmers' viewpoint in mind.

Mr. Townley-Smith says that he enjoys looking at grain crops and continues to work, in season, for the Extension Department of the University of Saskatchewan with the 4-H Clubs. He has always taken a keen delight in all growing things, he says, from children down to dandelions! He now has one great grand-daughter—which makes him feel a bit ancient—to use his own words. He has no particular hobby but spends a lot of time reading and does some writing as well. He has sung in church choirs for over 60 years and is still doing it.

A couple of years ago, Townley-Smith was informed that he was the head of his mother's branch of the Townley family. Some of the family heirlooms were sent to him from England, among them a family record in the form of a very big and



Maj. H. G. L. Strange

very old book, dating back to 597, the year that Augustine landed in England and when Ethelbert was King. The early part of the book is in medieval Latin, complete with Coats of Arms. It is a clear and complete record up to and including Mr. Townley-Smith's mother, and it now becomes his duty to add three more generations—a job that should keep him busy for some time to come!

OLDEST of all my retired farmer friends is Albert Loveridge of Grenfell, Sask. Mr. Loveridge was 97 last April and is still going strong. He farmed in the Grenfell area for 43 years, from 1884 to 1929, when he turned his farm over to his second son, Gordon, on shares. Gordon's son, Lorne, now runs the farm.

In 1929, Mr. Loveridge and his wife moved into Grenfell. They bought a house and settled down to enjoy life.

A good deal of Mr. Loveridge's time thereafter, however, was spent driving out to visit his three sons on their farms nearby and, when he felt like it, or when his help was needed, doing some work for them. He would plow, cut hay, stook, stack and haul grain and even (Please turn to page 35)



F. W. Townley-Smith

(left) seen judging a 4-H Oat Club competition.



Assistant Director of Family Farm Improvement Branch, Saskatchewan.

Choosing a Water System

Here is a summary of the farm situations and types of equipment that will influence your decision on water supplies

by JACK PECK

BASEMENT PUMPS

WITH the coming of electric power to the farm, there's the chance to install automatic water and sewage systems. Hot and cold running water is a real labor saver in the kitchen and laundry. The modern bathroom with bathtub, toilet and lavatory promotes better health as well as convenience. Piped water to livestock buildings cuts down the chores and can increase livestock production by 10 to 20 per cent in some cases.

The advantages are obvious. But how is a man to set about selecting the right system for his particular farm and his family's needs?

The chief factors to consider are the yield of water at its source, your daily requirements, the depth to the minimum water level, the location of the water system in relation to buildings, and the length and size of the suction discharge lines. Let's take these factors one at a time and discuss some of the equipment that is available.

THE yield of water at the source has a bearing on the size of the water system. For example, if the yield from a well is slow, you will need a small pumping unit with a large tank. Know the yield before you start and you can decide on the size of the water system. Bear in mind your daily water needs. These will vary from one farm to another, depending on the number of people using the system, and whether livestock will be watered or gardens irrigated from the same supply.

The depth of the minimum water level in the well affects the type of water system, as well as the size of the pipe and the type of installation you can have. For this purpose, wells are classified as shallow or deep.

Shallow wells are those where height of the pump above minimum water level does not exceed 22 feet. These shallow wells do not require any moving parts down the well, except for the foot valve. The equipment includes the centrifugal pump, single or double acting reciprocal pumps or the shallow well ejector or jet unit.

Deep wells are those with a suction lift of more than 22 feet. If a deep well plunger type is selected, it must be installed directly over the well. This means that there must be a well pit, or an above-ground pumphouse insulated and heated for frost protection, unless the pump is situated in a basement annex. This type needs a pumprod and plunger down the well, but it works satisfactorily in deep wells and is most economical if a well is more than 100 feet deep. Pump leathers are down the well and must be replaced periodically, but newer models can be serviced by pulling up just the plunger and rod.

If wells are not more than 100 feet deep, the deep well ejector or jet pump is very popular and easy to maintain. There are no moving parts down the well. The jet pump may be installed in your basement and can pump from a well some distance away. You will need a double pipe from the pump to the well.

A newer type of centrifugal pump has both pump and motor in a sealed unit submerged in the water down the well. This is known as a submersible pump. The deeper the well, the more stages are used to pump the water to the surface. No priming is needed.

Plastic pipe is not recommended for suspending the submersible pump in a well. The torque of the motor starting and stopping creates a twisting motion on the pipe and may break it. So use galvanized pipe for this purpose. Plastic pipe is fine for other positions in the water system.

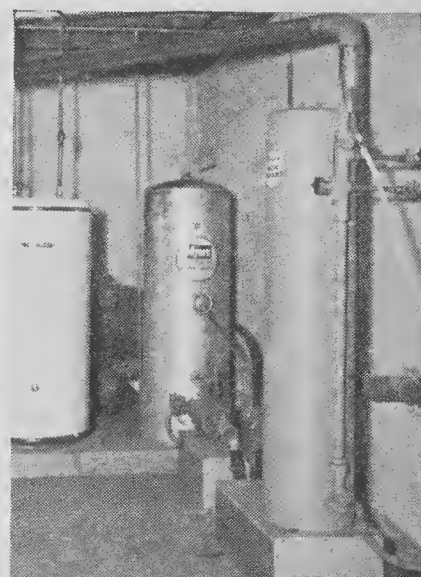
Select a pressure tank that has the capacity to meet your needs. Most systems operate at between 20 and 40 lb. per sq. in., which makes available only one-fifth of the tank's capacity. Normally, a 42-gallon tank is sufficient for most water systems, but larger tanks are needed where livestock use the same source of supply, or where the well yield is low.

Pipe friction is important in the design of a water system. If you have too small a pipe, you may need more horsepower and the result can be lower pressure at the end of the line. Loss of pressure between the well and the tap is affected by the depth from the pump to the water level, the elevation from the pump to the tank, pipe friction losses, and the pressure setting of the tank.

(Please turn to page 19)



This is a deep well jet pump located in a basement 200 feet from the well.



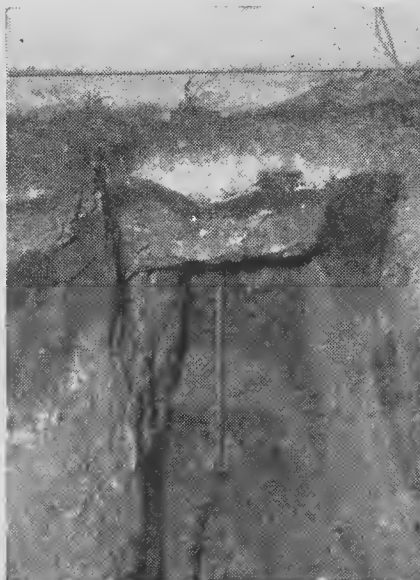
For the shallow well, a handy outfit known as an ejector pump can be used.

WELL-HEAD PUMP

A balanced-beam, plunger-type pump for wells below 100 ft. depth. It is placed directly over the well and must be situated in a pit or a shed for protection against frost.



BARN INSTALLATION



Frost-proof hydrant drains water below frost line when it is turned off.



Top view of frost-proof hydrant shows lever control. This is not automatic.

Proof from the prairies ... borderline spark plugs waste power, gas and money!

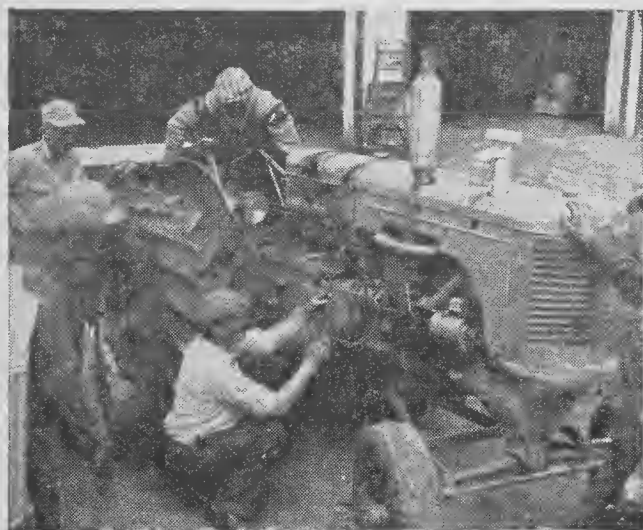
Until their tractors were tested on the dynamometer, most of these farmers had no idea how much power, gas and money, borderline spark plugs can steal without their knowing it

Just recently farmers from Kelvington, Saskatchewan drove their tractors into town for a dynamometer test. The purpose of the test was to prove that your ear can't tell when *borderline* spark plugs are wasting your tractor's pulling power and gas . . . they start robbing you long before you notice poor performance. It takes a dynamometer test to prove that even though a tractor may sound all right, a new set of spark plugs can boost horsepower as much as 25%. Keep your tractor running at its best by changing plugs every 250 hours and make sure you put in new Champion spark plugs because Champions deliver the full firing power you need for hard pulling and utmost gas economy.



At Ned Franks' Minneapolis-Moline dealership in Kelvington, Sask., farmers watch as a tractor's horsepower is tested on a power take-off dynamometer. First the tractors were tested just as they came off the farm. Then new

Champion spark plugs were installed and another test made. The average horsepower increase with new Champion spark plugs was 7.1%—proof that *borderline* spark plugs waste power without your knowing it.



Here a flowmeter is being used to gauge a tractor's gas consumption, first with the old plugs in and then again with new Champion spark plugs installed. Said David Evans, whose tractor showed a saving of 11.1% with new Champions in, "That adds up to a lot of money over a long period, I didn't realize that new plugs could help save so much gas and money."

What some of the farmers said:

- "Even though I put in new plugs last Fall, putting in new Champions made a big difference," said Orel Perron. "I'll certainly change plugs more often."
- Said Harold Anderson, when his tractor showed a whopping 25% increase in horsepower with new Champions in, "My 'special' plugs were supposed to last a lifetime and I was tempted not to put in new plugs, specially when my tractor seemed to be working so well. Now I see what new spark plugs can do."
- "Every horse counts in my kind of work", says Bill Butka, "I'm glad I found out about borderline spark plugs and what a difference new plugs make to a tractor . . . how they can save money too."
- New Champion spark plugs gave Joe Schrock's tractor a 6.7% increase in horsepower. "We depend on our tractors to work long and hard," said Mr. Schrock, "Now we know that putting new spark plugs in is one good way to keep them running at their best."



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SPARK PLUGS

Here is how one man found his WAY OF LIFE ON THE FARM

IN the heat of an August evening, you'll likely find apple grower Nolasque April relaxing in the scented shade of his cedar woods.

He might be watching his family and their friends splashing in the cool water of the lake he built himself. He might be barbecuing steaks for the group. He might even be fishing for trout that lurk in the cool shadows—trout he introduced to the spring-fed lake himself. Or, he may be just sitting by the pool's edge, watching fledgling waxwings dart from the willow trees out over the lake to gulp down passing flies.

Whatever his action, he may well be reflecting, as Canadians of French

by
DON BARON

origin are wont to do, on the way of life that can be found on a farm.

April is one farmer who has developed a philosophy of life. With him, there is no day - and - night scramble to accumulate more money. It is true that he has his busy days. He is the director of the School of Agriculture at St. Martine, Que. — a school that corresponds to those at Kemptville, Ont., or Olds, Alta., in English-speaking Canada. He also runs his 75-acre apple orchard in the picturesque hills around Franklin, Que., near the Vermont border. But from the pressures of these two jobs, he takes time to live. This calls for relaxation, for enjoying his family of eight girls and a boy, his grandchildren, and the nephews and nieces who congregate at his farm.

HIS pride is the lake, of course. For many years he watched the stream of spring water bubble from the ground just below his farm buildings. It provided him with crystal-clear drinking water, and a place to cool ginger ale, homemade "champomme" or apple champagne from his cellar. But then the stream trickled its crooked course across his land and away. It was in the summer of 1955 that he finally put it to better use.

A bulldozer and dragline rumbled down the farm lane, and gouged a huge hole in the ground along the stream's path. The earth was scooped out from a 3-acre area, with a depth of 14 feet at one end. A shallow beach was provided for the younger folks at the other end. He built a concrete dam and spillway at the exit end, to regulate the water flow. The total cost of developing the lake came to about two thousand dollars.

He seeded grass along its edges and planted willow trees for shade. And since he is an ardent fisherman and hunter, he had to stock it with trout. He waited for 2 years for a food supply to build up in it.

Mr. April belongs to a trout fishing club and this enabled him to stock his pond. He caught trout on fishing trips to the Laurentians, plunged them into milk cans full of fresh water, and rushed them home. The fish have thrived and grown. Last year, for the first time, he saw trout minnows in the pond. His eager hope came true—he could begin wetting his line in his own trout pond, and frying the fish over an open fire minutes after they come splashing from the water.

April calls the lake "Lac Luc" after his only son. And for a finishing

touch, he built a log cabin at its edge. The cottage has a kitchen and bedroom, a propane fuel stove, heater and lights. It is an ideal place to relax—for a day or a week end—and it is used by himself, or friends, through much of the summer.

For Nolasque April, there is no endless searching now for a better way of life. He finds it at his lake—only a stone's throw from his farm home. V

(Continued from page 17)

CHOOSING A WATER SYSTEM

If you need advice and booklets, you can obtain both from provincial departments of agriculture, universities, health departments and pump suppliers.

Stock Watering

ONCE an automatic pressure water system is available, quite a number of farms will be wanting to use it to cut down the chore of watering livestock. That means a system that will not freeze. Here is a guide to the equipment that is available.

If you have power and a water system, for a small additional investment of \$50 to \$150 you can have an automatic electric stock watering bowl. The price depends on the type and make. The principle in all of them is that water is piped underground below frost level to the bowl. The bowl is set at the proper height for the type of livestock that will use it, usually on pre-cast chimney blocks to the depth of the trench. The line extends up through the box and connects with the bowl. The chimney blocks are packed with insulation, such as flax straw, or wrapped with a heating cable to prevent freezing. The water level in the bowl is controlled by a float, maintaining approximately a gallon in the bowl. A heating element in the bowl is operated by a thermostat set at 45° to 50°F. The element usually works about one-third of the time in cold weather.

An alternative system is with an immersion heater, which may operate up to 14 hours a day or more. The heater is installed usually in a 120- to 200-gallon tank, so it must replace the heat loss of this volume of water to keep it from freezing.

Frost-proof hydrants are being used by many farmers who have water pressure systems running to livestock buildings. Hydrants generally cost around \$25 and they are manually operated. They can be used in a corral or feedlot too, if there is a trough or tank there, but the water in the trough or tank must be heated. The principle of the hydrant is that its lever controls a valve at the bottom of the drop pipe, so that every time the water is turned off it drains well below the frost level (8 ft.). When the hydrant is turned on, water comes up from the depth of the trench. This eliminates the freezing problem, but it is not automatic.

As with the water pressure system itself, the selection of a stock waterer will depend on the size and type of your operation, and the amount of time or money you can spend. V



Nolasque April relaxes at his own man-made lake. He seeded grass at the edges, planted willows for shade.



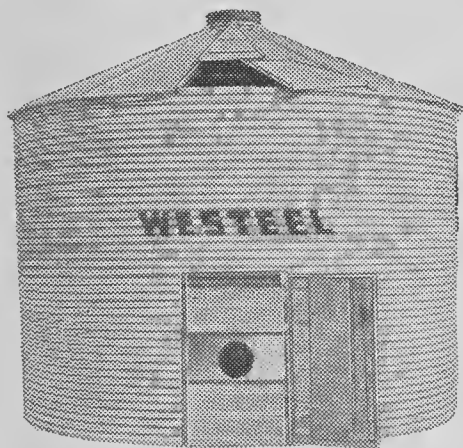
• Above: Nolasque's son dives into 14 feet of water. The lake has been called Lac Luc in his honor.

• Right: His sisters and friends use the lake nearly every day all summer. The cottage is a favorite retreat from the heat and serves as a guest house.

[Gulde photos]



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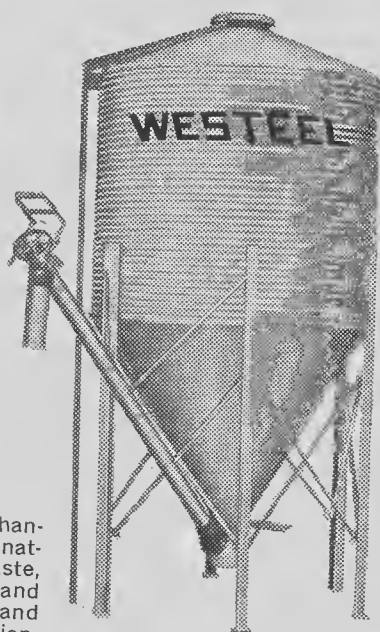
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Through Field and Wood

by CLARENCE TILLENIUS—No. 23



CLARENCE
TILLENIUS

AN unfamiliar animal sound in the night is eerie to the unaccustomed, especially if made by a creature unknown. A sound you might not notice by day can send prickles along your spine when heard alone in the forest at midnight.

Traveling an unfamiliar route in heavy jack pine woods one afternoon I carelessly missed a couple of blazes and lost the trail. It was nearly night and it began to look as though I would spend the night in the forest. Rain threatened and having neither blankets nor tarp it was a happy surprise suddenly to come upon a tumbledown log cabin. The clearing around it was overgrown and obviously no one had lived there for a long time. A sort of pole veranda ran along the front and the doorway opened off this. Inside was a rusty stove, a pole bunk and much evidence that various animals had investigated the interior.

Hurrying to get things done before it was completely dark, I gathered pine branches and grass to fill the bunk, then prepared and ate a scanty meal. Mosquitoes swarmed into the cabin, tuneless and joyous, having apparently not had a chance at a human being since the previous owner's departure. A smudge of green grass and leaves filled the cabin with smoke and though nearly asphyxiating me, held them at bay. The pole bed proved more comfortable than it looked and I fell asleep.

Some time later I woke with a start. Still half asleep, I had a confused notion of having heard a child crying in pain. The clouds had blown away and bright moonlight streamed through the broken roof. I listened but could hear no sound and decided that I had been dreaming. Once more sleep overcame me.

All at once the sound came again, and this time also what sounded like

heavy footsteps outside mingled with snuffing and, unmistakably, the rattle of claws. An animal was outside the door; but *what* animal? Far from a settlement and in the dead of night one hears such sounds with perhaps a shade less of careless nonchalance than if heard on a crowded street at midday. A few moments of silence followed and suddenly the squalling cry again, followed by a scuffle. A whimpering and querulous whining grumble began, and then a sudden rasping, the sound of powerful teeth attacking the porch floor.

THE mystery was no more. I knew now the author of the disturbance and got up to check. Outside on the porch a pair of porcupines were busily gnawing the doorsill where a few drops of bacon grease had spattered when I prepared the meal. Always hungry for salt, the porkies cared little for my presence and were determined to collect this manna from heaven before any other quilled citizen got wind of it.

A dull-looking fellow with apparently a low IQ and a most untuneful repertoire, the porcupine nevertheless manages to stay fat and, though constantly grumbling, does himself very well. Seeing no future in aimless hurrying through life, you may pass him one day as you see him here, clinging to a branch with two hind feet and forepaws clasped to his chest. A week later, if the tree has not run out of bark, you may pass again and find him still in the same tree, regarding the world with bleary eyes and methodically chewing away, grumbling to himself about the unaccountable increase of humans in his forest.



Members choose programs
and compare results

Feed Trials On the Farm in This Club

ON-THE-FARM feeding trials are answering dollars - and - cents questions for beefmen up in Huron County, Ont., in a new feeder-calf program there. Eighteen members, ranging from 16 years to middle-age, are feeding four steers each and keeping careful records of the feed eaten, and the gains and profits made.

No one suggested yet that any single feeding program is more profitable than all others, but one thing is sure—beefmen have a way to go in finding the best way to feed steers. In summing up last year's results, members agreed that half of the steer groups could have given owners more profits with different feeding.

For instance, Ken Campbell, one of the district's biggest steer feeders, turned out four 900-lb. steers to pasture last spring in the project.

"I should have known they were too big to go to grass," he explains. "One of them gained 16 lb. in 6 weeks. None of them made any money for me. I should have kept them on feed in dry lot."

"But this is the value of the Club," he went on. "In our normal feeding operations, we don't keep accurate records. With every club member keeping records, we can compare results and see which methods pay."

EACH member follows a program of his choice, but most of the steers are wintered through on light rations, turned out to summer pasture and grain-fattened in the fall. Some steers get hay alone in the winter. Some get grass silage or corn silage. Some rations are supplemented with grain or concentrate. Some steers were sprayed with Co-ral last fall to control warble grubs and external parasites. All had stilbestrol.

While no "best" way to feed steers has turned up, ag. rep. Doug Miles says that certain principles are already emerging that should make money for district beefmen who are aware of them.

Miles says that experienced beefmen in the club usually feed plenty



[Guide photos
"When steer starts to get grain, keep him in a feedlot," says Ken Campbell.

of roughage over winter to keep their steers growing, along with some concentrate to balance the ration, and maybe a little grain. He believes it looks like steers should be fed to gain 1 to 1½ lb. per day and no more, over winter, if they are going to be finished on grass. Best wintering ration may be corn silage, with a little hay and concentrate as well.

What's more, he says that in his area—one of abundant and not too expensive land — bigger profits seem to result from finishing the steers on grass with some grain, rather than in the dry lot.

He adds: "Any beefman should figure out how best to feed the kind of rations that he has available. Good pastures, which include legumes, can reduce the cost of beef production. Grain in the ration will give the carcass better color."

FARM co-operatives at Seaforth and Belgrave sponsor this feeder calf club. They appoint a management committee, which includes the agricultural representative, to make general club rules and suggest when to buy and sell cattle. The co-ops also put up prize money.

Some members feed their own home-raised steers, some buy steers

locally, and some buy western cattle. Straight Holsteins, and cross-breds too, have been fed by members, in addition to straight beef-bred cattle. The club year normally starts in the fall, and at that time a drover goes to each farm and values the steers there. Last fall, the calves were sold in two lots, to give later steers a chance to reach top condition. Packers bid on the steers on a rail-grade basis, so members can travel to the slaughterhouse and see the final results of their feeding programs—the carcasses, ready for the butcher.

IN neighboring Bruce County, the same kind of feeder-calf club program is yielding some interesting results, too. Ag. rep. George Gear outlines several conclusions he has reached from the results of 3 years of club trials:

- Finishing steers on grass with some grain is more profitable than dry-lot finishing.
- Steers fed early cut hay in winter might gain a pound or more a day without grain as a supplement, proving that early cutting of hay can reduce costs.
- Calves should be turned out as early as possible in the spring.
- Pastures should be adequately fertilized to boost both quantity and quality of the grass.



Steers on good grass can make killing grade with only a little grain at the last stage, according to Murray Scott.

- Grain-feeding on pasture should begin a couple of weeks before the grass is dried up.
- Ninety days of grain feeding will be required to finish a yearling steer to produce red brand carcass. —D.R.B.

Limit on Insecticide

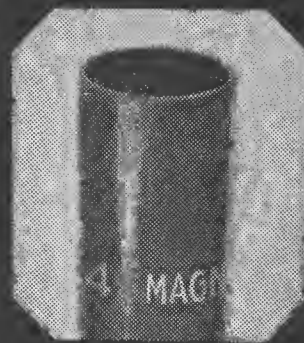
UNDER the heading of "Insecticide for Livestock" in this column last month, it was stated that the insecticide known as Korlan had been approved for use on dairy cattle. The manufacturers point out that this statement is incorrect. Korlan may not be used on lactating dairy cows nor on "dry" cows within 21 days prior to calving.

Kick 'Em Out

KICKING out cows that aren't pregnant or with calf at their side can save you a lot of time and money. The extra time and feed loss is more than the delayed calf is worth, says Dr. Tom Burgess, beef cattle specialist at the O.A.C.



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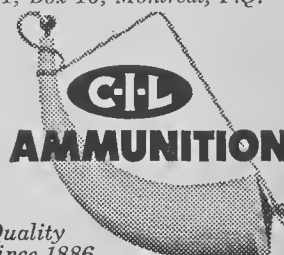
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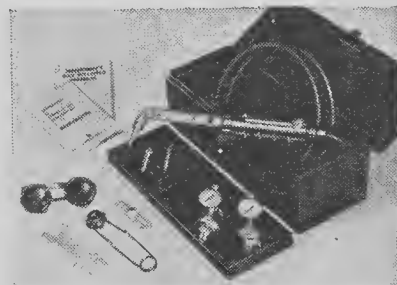
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LIVESTOCK

Beef Cattle Must Pay Rent

BEFORE improving your beef barns, remember that there's a good chance you will lose money if the building investment goes beyond \$5,625 per 50 cows. H. E. Bellman of the Ontario Department of Agriculture says the beef cow-calf herd can pay for nothing but the most simple and inexpensive buildings. With an average 90 per cent calf crop each year, and net sales per year of steers and heifers per cow of 500 lb., your net annual sales will be 22,500 lb. (50 x 500 x 0.9). The average price over the last few years has been 25 cents per pound, so total gross returns for the 50-cow herd would be \$5,625.

According to Bellman, economists figure that beef cows can afford to pay about 8 per cent of gross annual income for annual rent of buildings and equipment. So the annual barn rent would be \$450 (\$5,625 x .08). This annual barn rent includes depreciation, maintenance, interest, insurance and taxes—\$5,625 represents the break-even point for buildings. It is not necessarily the most economical figure.

Any investment for facilities above the actual need of the animals is an economic loss, even if the total is well below the break-even point. A cow that produces a \$200 calf doesn't need twice as much housing as one producing a \$100 calf. All it means is that the higher the return per cow, the more you can invest in buildings and still break even.

What will \$5,625 buy? Bellman says you would have to spend \$3,500 to house a 50-cow herd in a new pole frame barn with enough room for bedded area and stall storage. This is a 42 x 84 ft. building at \$1 per square foot. Other things you might buy would be a hay barn of 125-ton capacity for \$1,000; 4,000 sq. ft. of paved yard for 25 cents a sq. ft., or \$1,000; fence, waterers, hydro, etc., could take the remaining \$125. This leaves nothing for "lazy susans", silos or auger-fed bunks.

Bellman's final advice is not to go too far in cutting building costs. Remember that feed and labor make up 75 per cent of the cost of production, while buildings and equipment make only 10 per cent. Pick equipment and buildings that cut the costs of feed and labor.

Ewes Need The Exercise

LEAVE the ewe flock on pasture in the fall as long as the weather is suitable and if they have enough to eat. E. N. Needham of the Ontario Agricultural College says the ewes will benefit from the exercise they get on pasture, but they should not be allowed to lose flesh or they will need expensive feed to bring them to proper weight when they are brought inside. Exercise cuts down the chances of complications at lambing time.

When the sheep must be brought inside, all they need is shelter that is draft-proof and protects them from

driving rain and snow. They do not like to be kept warm, but they need good ventilation and freedom from drafts. Figure on providing 18 square feet per ewe. An exercise yard should give them at least double that amount.

If the ewe flock comes off pasture in good condition, and you have good mixed hay, silage or roots, they will need very little grain. Watch their condition. If condition goes down, feed at least half a pound of grain per day, preferably oats. Six weeks before lambing, cut down on silage and roots, and increase the grain.

Fair Shares For Every Calf

THIS picture shows how we pail-feed our spring calves. The calves were born in February and are a Holstein-Hereford cross. After a few feedings, one person could feed all six at once.



The board above their heads is on hinges, and when closed is held down securely. This method assures each calf of a fair share of the skim milk, and for that reason is better than trough feeding. It is also better than trying to enter the calf pen with milk pails.—VENTON J. LUCEY.

Warbles, Lice Controlled in Tests

NOT only do the new systemic insecticides, like Co-Ral, give effective control of warble grubs, they also provide complete lice control when used as a spray for the cattle. That is what the Livestock Branch of the Ontario Department of Agriculture found in on-the-farm tests carried out last winter.

In its trials, which were made in 16 feedlots in Bruce and Huron Counties, 570 calves and yearlings were sprayed and 377 were left untreated as checks (reported in Country Guide, January 1960). When the cattle were examined this spring, 439 of those sprayed were completely free of grubs. A total of 2,180 grubs were counted on the untreated cattle, as compared to 351 for the treated group. Only 61 grubs were found for every 100 animals in the groups that were treated, compared to 578 grubs for every 100 head of untreated.

The Livestock Branch states that all co-operators in the trials reported the treated cattle seemed to be completely free from lice all winter. This was confirmed by officials who examined cattle in the spring.—D.R.B.



A Couple Of Ill Winds



Bill Sinclair says quality stock and quality feed are pretty hard to beat.

DAIRYMAN Bill Sinclair is inclined to agree with the old adage about "It's an ill wind that blows no good." Bill, who farms near Strachan, Alta., in the foothills country west of Rocky Mountain House, has had this demonstrated to him twice on his own place.

A few years ago a routine T.B. test on his 18 grade cows showed positive on some of the animals and he had to get rid of his herd. This seemed like a stroke of bad luck at the time, then he got to thinking. He'd never really been satisfied with his cows, and he'd talked about replacing them with top quality animals for a long time. Now was his chance to get a new herd.

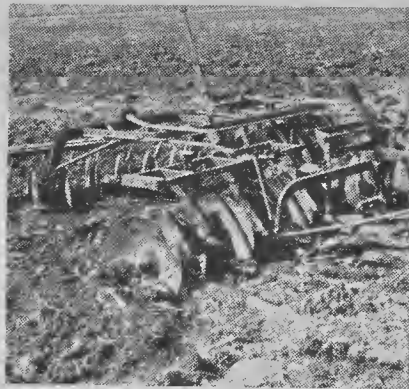
After shopping around a bit, he managed to get 10 good Holsteins from a man who raises the big black-and-whites for beef. When he started milking them, Bill found the 10 new cows produced twice as much as the 18 cows of his former herd. What's more, they consumed a lot less feed.

At the present time, Bill Sinclair has 16 cows (half of which are registered) and a registered Holstein bull. Fourteen of these cows are milking, and he's shipping more cream than he ever thought possible before. Eventually he plans to have a completely registered herd.

The second "ill wind" was a bout with pneumonia that came just at seeding time. For years Bill had been toying with the idea of buying all his feed grain and using his 90 acres solely for pasture and forage. But, more from force of habit than anything else, he'd kept putting in a crop of oats and barley each year.

Then he got sick and wasn't able to sow any grain at all. This was no disaster, however, for he found that this put him away ahead of the game. Not only did he save himself the labor of seeding, cultivating and harvesting, but the purchased grain turned out to be better feed.

"As soon as they went on the new grain my cows started producing



[Guide photos] *Homemade disk cultivator made of odds and ends on the Sinclair farm.*

better," said Bill. "Our growing season is a bit short here to grow high quality grain. I didn't think so at the time, but getting sick was one of the best things that ever happened to me."

The modern slang expression "better to have stayed in bed" really proved true in his case.—C.V.F. ✓

Cool Cows Produce More

WHEN the weather's hot, we tend to slow down. It's the same with animals, says Pete Herner of the Manitoba Department of Agriculture. Dairywomen, in particular, depend upon constant production for their livelihood, so they should take steps to ease their herd's discomfort.

Dairy cattle should have ample shade while on pasture. They perspire very little, so high temperatures are harder on them than on us, especially over 85°.

Trees make fine shade if they are not so close that they reduce air movement. Pole shelters should be built for open pastures.

Plenty of fresh water close to the grazing area is important. If a cow has to walk far, she will not drink enough during the day.

Flies and mosquitoes thrive in hot weather and bother cattle to the

point where production suffers. Spray barns or milking parlor walls with malathion or diazinon. Spray cows with methoxychlor or a repellent.

Native pastures, where in use, tend to stop growing in the hot weather season, and the grasses become coarse and unpalatable. Provide a supplementary pasture of tame hay or a cereal crop. Pasture should be plentiful so that cows are satisfied after grazing for a short time. ✓

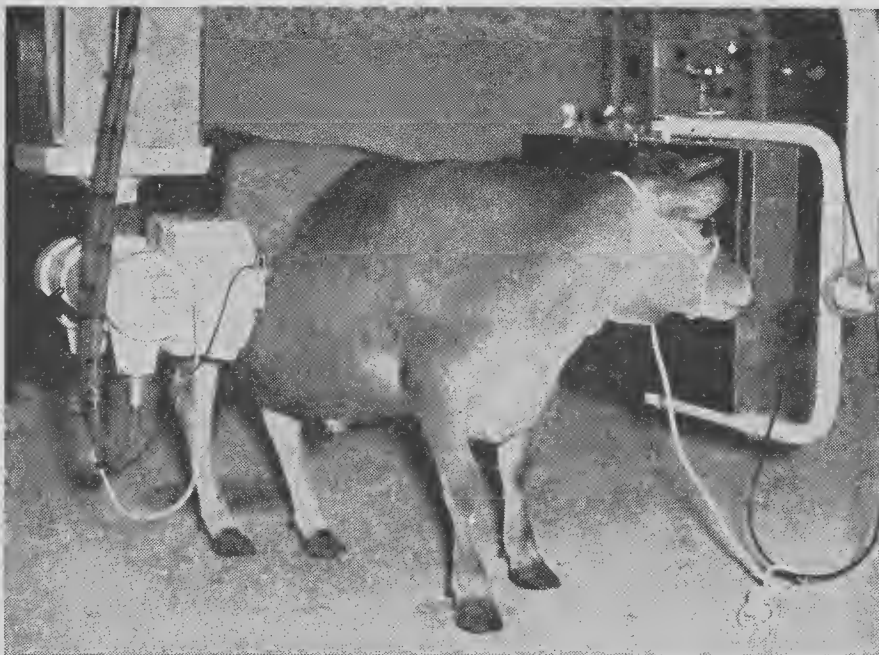
"Q" Fever Danger to Man

THERE'S a strong suspicion that "Q" fever may be present in Alberta, but there is no clear-cut proof, in spite of blood sample tests of cattle, sheep and humans, as well as milk sample tests. Dr. E. E. Ballantyne, director of Alberta's veterinary services, told a dairyman's convention earlier this year that this uncertainty is due to the fact that it has not been possible to isolate the organism yet.

Cattle, sheep and goats are sources of the infection, although they do not show the symptoms. In humans, the disease is similar to undulant fever, grippe, virus pneumonia, or atypical pneumonia. Contaminated dust and raw milk from infected cows are mainly responsible for the spread to man. Proper pasteurization of milk at 145°F will make the milk safe for human consumption.

Since "Q" disease is most common in certain occupations, it is classified as an occupational disease. Outbreaks in North America since 1940 have always involved workers in slaughterhouses, wool and hair processing plants, research and diagnostic laboratories and dairies. Veterinarians have also developed it occasionally. In all cases the infection was traced to cattle or sheep. ✓

Guelph Has Unique X-ray



[O.V.C. photo]

THE only unit of its kind in the world, this new diagnostic X-ray equipment has been installed at the Ontario Veterinary College, Guelph. It is being used to take X-rays of cattle and horses. In the picture, a steer is having its abdomen X-rayed. The unit cost \$60,000. ✓



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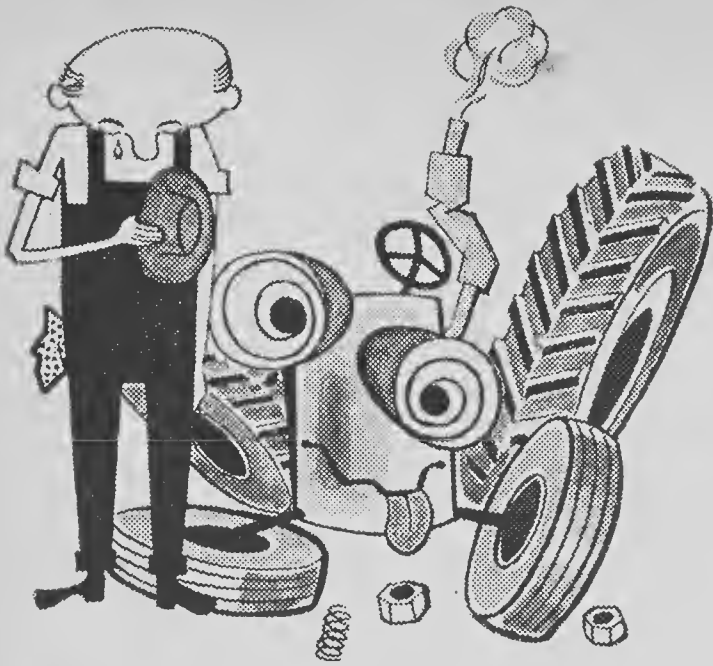
HOW TO SURVIVE THE DOG DAYS!

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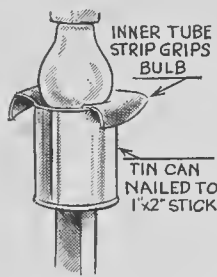
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Bulb Exchanger



Here is an easy way to exchange light bulbs on your yard pole. Take a 1" x 2" board and nail a can on the end of it. The can should be a little bigger than the bulb. Attach a piece of old inner tube inside the can, so the bulb will fit tightly inside the can. Using this device, you avoid climbing the pole every time the bulb burns out.—L.C., Sask. ✓

Cotter Pinning

If a guide's provided across the end of the bolt, locating the hole for a cotter pin is easier when using castelated nuts. The guide can be a notch filed parallel with the hole. Line the nut up with the filed indicator notch to insert the cotter pin. This is especially handy when working with bolts coated with grease and dirt, or when bolts are located in difficult places.—D.E.F., N.B. ✓

Cleaning Gun

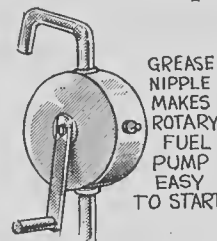
Here is an excellent cleaner for oil filter cases, etc. The materials needed are an old grease gun and a length of rubber hose. Remove the head of the grease gun, slip the hose onto the extended pipe, and it is finished. If an old tire pump hose is available, the cost of the gun is nil.—W.E.L., Sask. ✓



Holes in Concrete

When you're pouring concrete and plan to set pipe or other round posts in it, just set straight-sided pop bottles upside down in the concrete before it sets. Let the bottles stick up half an inch above the level of the concrete, and after it sets, break the bottles, remove the glass and you have nice round holes.—H.M., Pa. ✓

Pump Starter



Having trouble with a rotary fuel pump in getting it started, I solved the problem this way. I drilled a hole in the side and tapped it for a 1/8" grease nipple. Now I inject two squirts and the pump starts immediately.—L.S., Alta. ✓

Patching Plaster

You can eliminate the difficulty caused by patching plaster drying too fast. Mix some rubbing alcohol with the water.—R.M., Mich. ✓

Vacuum Leaks

Small vacuum leaks in auto engine manifolds and carburetors are usually drowned out by other engine sounds. You can locate them by using a small funnel attached to a length of small diameter hose. Hold the funnel to your ear and move the hose around. It will amplify the sound unmistakably when it nears a vacuum leak.—H.M., Pa. ✓

Hammer Handle

For a permanent hammer handle, take the lever from some old machine and cut it to the length of a hammer handle. Weld it onto a hammer head. You will find this specially good for heavy work.—L.C., Sask. ✓



Cement Mixer Pulley

You can save a lot of grief, when running a cement mixer with a tractor, if you bolt a spare wheel and tire from your car to the mixer's pulley. Use harrow drawbar eyebolts. This will increase the size of the cement mixer pulley sufficiently to allow a reasonable speed of the tractor pulley.—A.F.S., Alta. ✓

When You're Stuck



Whenever your car is stuck in the snow or mud, and nobody is there to help you, use your jack. Working at the rear of the car, attach your jack to the bumper at an angle, as illustrated. Make sure the jack has a hold, then work it to the fullest extent. Repeat this operation until the car is freed.—H.W., Man. ✓

Make a Hone

Cement a piece of sheet aluminum to a wood block to make a hone that will bring the edges of fine cutting tools to razor-like sharpness. This includes such tools as chisels, plane blades and carving tools.—H.M., Pa. ✓

Handy Blower

A small pump of the type used formerly for mantel lamps is an excellent tool on farms, if they're not equipped with an air compressor. It will blow a surprising amount of dry dust out of distributor caps, etc., and it's handy for the woodworker in blowing sawdust out of nailset holes before filling with plastic wood.—W.E.L., Sask. ✓



Catch a Weasel

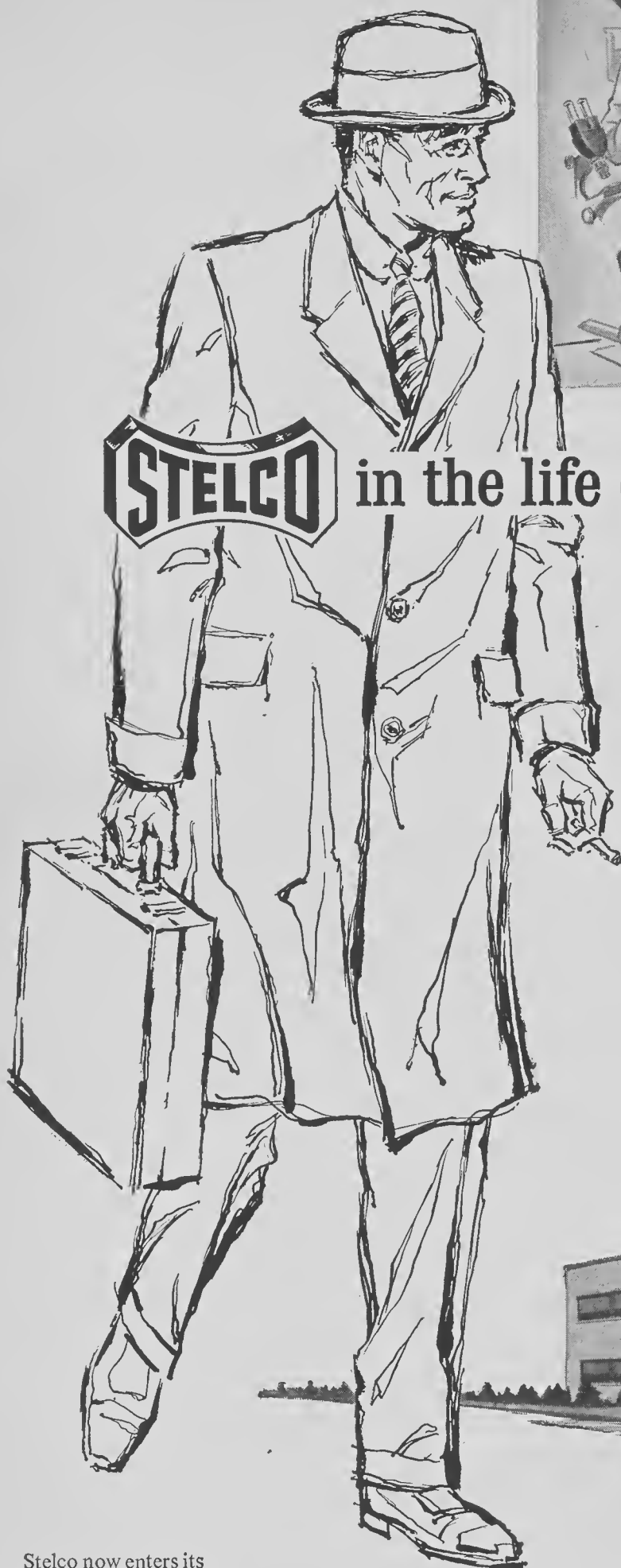
To catch a marauding weasel, set a trap in a basket or box and cover it with feathers.—W.G., Alta. ✓

80PR9



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A Place for Forage Even on Grain Farms

FEDERAL Government policy, which allows a farmer to retain any land he seeds to forage crops as specified acreage on which he can sell wheat, oats and barley, should be quite an encouragement for farmers to seed some cultivated land to grass and alfalfa, especially if they are piling up grain on their farms.

D. H. Heinrichs, who is in charge of the forage crops section at the Swift Current Experimental Farm, delivered a paper in Regina earlier this year, in which he said he suspected that most grain farmers would want him to suggest a crop to them which they could grow on part of their farm and sell it for cash without having to resort to feeding livestock to convert it into cash. However, he told them that forage and livestock are inseparable. Although there are a few farmers, and there is room for a few more, who can turn a profit by growing grass-alfalfa mixtures to be sold as hay, the majority have to feed it to livestock.

Mr. Heinrichs said there is also room for a few select farmers to grow grasses and legumes for seed and thus realize a cash return. Seed growing brings with it many special problems and not all are cut out to be successful seed growers. The seed market, too, is only as great as the demand for seed to sow hay and pasture crops, and should there be a mass turning to seed production, the market would soon be glutted and the seed worthless.

In answer to the opinion that more money can be made on arable land by growing grain than by growing forages and livestock, Mr. Heinrichs said it is quite a logical conclusion based on early experience, but in the light of recent information, the idea is open to question. He made the following points.

Firstly, there was unlimited native grassland in the early days, so forage production was based on what native grass would produce.

Secondly, many early settlers from Britain and Europe tried cultivated grasses and legumes and were dismally disappointed. The majority of the grasses and legumes were not adapted to the rigorous climate of the Prairies.

Thirdly, it was simpler to start grain farming and the product was more easily taken to market than livestock were.

Since those days, the major objectives of forage crop research have been to find and develop forage crops that are hardy and persistent under the prevailing conditions. Much attention has been given also to seeding and management to make establishment and growth of forage crops less risky. It could be said that remarkably good progress had been made during the last 15 years.

Swift Current forage specialist reports significant test results

The grasses which can now be recommended unreservedly for one purpose or another in the Prairies are crested wheatgrass, brome, Russian wild rye, intermediate wheatgrass, tall wheatgrass and reed canary grass. Great advances have been made with the development of suitable legumes to use nitrogen from the air, enrich the soil and help to maintain its productivity. There is now the creeping-rooted alfalfa variety, Rambler, developed at Swift Current to withstand drought, cold and over-use. A new variety of sweet clover, Cumino, was developed at Saskatoon and is free from the bitter taste and poison-causing qualities.

Mr. Heinrichs predicted that if these two legumes are properly used with some of the new grasses, the production of cultivated pasture and hay fields could be at least doubled. Grass-alfalfa mixtures must form the basis for all long-term pasture and hay fields. One should never think of one or the other, but rather of both together.

Grass-alfalfa mixtures have proved their superiority as hay crops over grasses alone, or cereal crops, in experiments at Swift Current. The feed resulting from a mixture is much better quality feed than from straight grass, because the protein content is about 5 per cent higher.

Alfalfa is the essential component in a mixture for maintenance of maximum hay yields. It prevents the perennial crop from becoming sodbound through a nitrogen deficiency. Its yielding ability does not deteriorate even after 10 years, according to results from a 1942-54 experiment. This showed that the average dry matter yield for the 12 years was 1,720 lb. per acre from an alfalfa-crested wheatgrass mixture, whereas the average for the same period was 740 lb. of crested wheatgrass alone. The difference between alfalfa-grass and grass alone has been borne out by other tests on the loam soil at Swift Current. Considerably higher production can be

expected in dark brown soil zones and the Park belt.

Another comparison has been made between per-acre returns from forage and those from grain. On the loam soil, the average hay yield of grass-alfalfa mixtures from 1939 to 1954 was 0.87 ton per acre, with a gross value of \$10.64. The wheat yield on summerfallow during the same period was 19.6 bushels per acre, or 9.8 bushels per cultivated acre, with a gross value of \$10.90 per acre, based on current prices each year. Mr. Heinrichs guessed that forage fed through livestock would show an even greater return per acre.

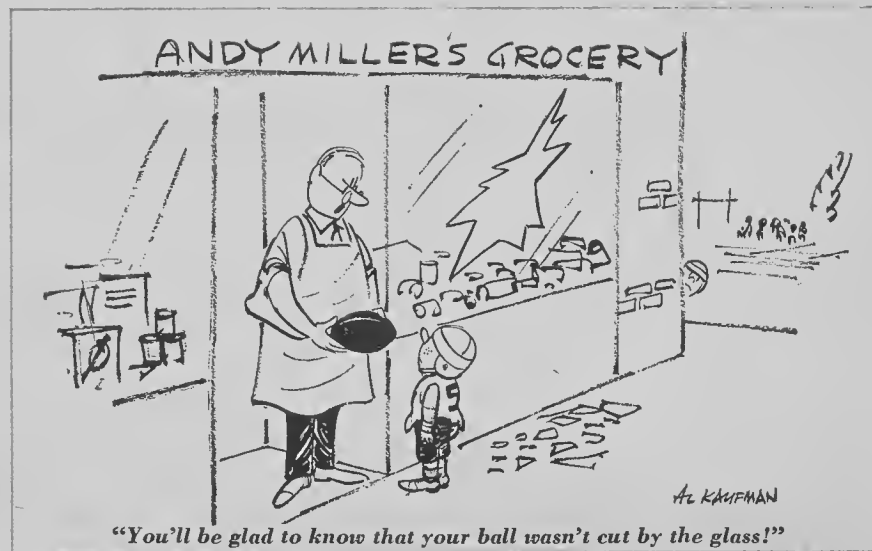
THERE has been another experiment from 1951 to 1959 in which the yield of grass-alfalfa was compared with continuous oats, and oats on fallow. Transcribing the production to per cultivated acre basis gave these yields: crested wheat-brome-alfalfa, 1 ton per acre; continuous oats, 0.9 ton; oats on fallow, 1.1 tons. When cost of production was taken into account, the grass-alfalfa mixture was far ahead of oats. The only time oats on fallow really proves useful is in a dry year, when grass and alfalfa make very poor growth. But by proper planning of feed reserves, it should be possible to rely on the mixture for hay instead of oats.

Yet another experiment began in 1952 to find the income from sheep raised on farmlets of 7.2 acres. The best farmlet was the one on which three-quarters of the acreage was seeded to grasses and alfalfa, with the balance in cereal-fallow rotation. In the period 1952 to 1957, the gross income of this sheep farmlet was \$16.67 per acre, while on native range in the same period the income was only \$2.79 per acre. The \$16.67 figure compares very favorably with grain production, as a farmer could not have sold grain for that amount per acre under the quota system.

On sandy soil, said Mr. Heinrichs, cattle have gained 80 lb. per acre on a grass-alfalfa mixture, and only 17.5 lb. on native range. If the 80 lb. of beef is sold at 20 cents per lb., the return is \$16, or much the same as was obtained from the sheep.

The speaker said he presented this data to show that grass-alfalfa mixtures, utilized through livestock, can produce a gross return at least equal to that of grain, even without a quota, on loam and sandy soils. He doubted if the results would be much different on heavy clay soils.

(Continued on facing page)



SOILS AND CROPS

As the experiments indicate that a grain farmer can improve his income if a part of the land is used for livestock, Mr. Heinrichs suggested the following possibility for a section farm:

There would be 100 acres in pasture; 50 of this in Summit crested wheat and Rambler alfalfa for May and June grazing, and 50 in Russian wild rye and Rambler for July and August. The hay crop would be 50 acres of a crested wheat-brome-Rambler alfalfa mixture, or a mixture of intermediate wheat - brome - Rambler. The hay field would be cut only once a year. The rest of the farm would grow grain for cash sale and livestock feed.

Mr. Heinrichs felt sure that such a section farm would be more stable than a section of straight grain, no matter where it might be. It would mean security and permanency. It would conserve the soil and maintain its fertility. It would mean a type of farming to keep the family occupied and interested in the business of farming the year round.

Growing grass or legume seed on a grain farm is another possibility, making an excellent sideline with very little additional equipment. Returns from grass seed production have been quite high in the last few years: crested wheat, 200 lb. per acre at 20 cents, \$40; Russian wild rye, 100 lb. per acre at 60 cents, \$60; intermediate wheat, 100 lb. per acre at 30 cents, \$30. Seed production of alfalfa in the grain area is questionable because of the absence of wild bees for pollination. But Mr. Heinrichs believed that in certain areas of the Regina Plains, entire quarter-sections could be seeded and stocked with tame bees, with a few competing flowers like wild mustard in the vicinity. Perhaps 150 to 200 lb. of alfalfa seed per acre could be produced. Sweet clover is also grown quite successfully if fairly large numbers of honey bees are present.

"From what I have said, you will realize that forage should certainly not be left out of the farm planning, even on a grain farm," Mr. Heinrichs concluded. V

Steers Preferred Pellets

COMPARING baled, ground and pelleted hay at the Nappan Experimental Farm, N.S., it was found that pelleted hay was preferred. Steers on pelleted hay consumed 9 per cent more roughage and gained about 8 per cent more in body weight than those fed baled hay. Ground hay did not appear to have any appreciable effect either on feed intake or body gains.

It is thought that the reason for the improved palatability of pelleted hay is the absence of dust. It is also possible that the more concentrated nature of the pellets permitted animals to increase their intake.

Pelleted hay is not economical in the Nappan area at present, but the development of machinery to do the job more efficiently could make pellet feeding an economic possibility. V



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HORTICULTURE

Here are some skills
that anyone can acquire

How About Some Own-Root Fruit Trees

by PERCY H. WRIGHT

NOT many of our fruit growers realize fully the possibilities in growing fruit trees at home. It is usual to think of budding and grafting as mysterious skills, the monopoly of the nurseries. Actually, these are skills that anyone can acquire that puts his mind to it; but there is a much simpler way of propagating fruit trees, and it often results in superior trees.

This method is layering, which consists of getting young wood under ground (while keeping the tips exposed and leaved) until the covered stems produce roots, after which they are detached and set out as separate plants. Layering can be done by several methods. One is to bend an established branch down under the soil, and another is to cut back the tree or shrub to near the ground and mound the young shoots as they appear. In either case, 1, 2 or even 3 years may be required to produce detachable rooted-layers. It depends on the presence of surface moisture and the nature of the plant layered.

CHERRYPLUMS, the hybrids between the sandcherry and the Japanese plum, such as Opata, Manor and Dura, respond well to layering. However, this class of fruits has become less popular than it once was, as farmers find that the bush shape of the plants prevents weed control by cultivation exclusively, and makes hoeing imperative.

In the northern parts of the prairie provinces, where this class of fruits also suffers from winter injuries, the disadvantage is more marked than on the open plains. On sites where winter injury is common, cherryplums budded on sandcherry roots are to be preferred, for their smaller annual growth means less sap in the wood when fall comes, and hence greater hardiness. Plants grown on their own-roots come next for value, and plants budded on plum roots are least hardy, on account of their too-vigorous growth.

Apples and crabapples can be layered successfully also, although they will usually take a year longer to produce good roots than the cherryplums. Whether an own-root apple or crabapple is more desirable than a budded or grafted tree will depend upon the hardiness of the variety in comparison with the hardiness of whatever seedling would be used as understock for grafting upon. An apple, for instance, would undoubtedly be less hardy on its own roots than if grafted on Baccata, the Siberian wild crab. Perhaps it would be less hardy, too, than if grafted on the seedlings of standard crabs which are commonly used for understocks. On the other hand, the standard crabs themselves, such as Osman, Dolgo

and Rescue are sure to be fully as hardy when own-rooted as when budded on the average of their own seedlings.

It is undoubtedly true that nursery-men could increase the hardiness of both apples and crabapples by grafting them on the Siberian wild crab of pure strain, but this they are reluctant to do, since such trees are noticeably slower growing than trees of the same varieties budded or grafted on the usual seedlings of standard crabs. The customer usually wants a vigorous, rapidly growing tree, not realizing that the faster the growth the greater is the chance of winter injury in years with early autumns.

THE tree plums, of Nigra or Americana descent, do not layer. It would be possible, nevertheless, to produce own-root trees of varieties such as Dandy, Norther and Pembina from a grafted tree. One would merely plant the grafted tree deep, with the graft or point-of-union 6 inches or more below the surface. Then, when the tree suckered, its suckers would almost surely be produced from above the graft, and hence would be from the named variety rather than from the worthless understock.

If a given type of fruit, or a given variety, is difficult to layer, there is a good possibility that its rooting response would be increased by wounding slightly the buried wood, just enough to expose the cambium or growth cells, and then applying to these small wounds a root-inducing hormone of the type used to hasten the rooting of cuttings.

Producing bushes of the small fruits, such as currants and gooseberries, is done too often by layering to require any special description. Needless to say, layering is a useful device for the multiplication of many ornamentals too.



"We figure if Dad's ties don't scare off the crows, nothing will!"

POULTRY

*Treating birds and housing
can keep pests at bay*

Lice and Mite Control for Chickens

LICE and mites reproduce rapidly in warm weather and may occur in large numbers on your chickens. The Canada Department of Agriculture recommends the following control methods:

Northern Fowl Mite. Apply 4 per cent malathion dust to floor litter at 1 lb. per 40 sq. ft. Broadcast it with a mechanical duster, shaker can or gloved hand. Another way is to dust infested hens as a flock or individually, using 4 per cent malathion with a shaker can or rotary duster on the flock at 1 lb. per 100 birds, or with a puff duster on individual birds at 1 lb. per 150 birds. Two puffs per bird are adequate if they are directed at the vent and the breast. Dusting is most effective for battery or range birds.

Nicotine sulphate at 40 per cent will also control the northern fowl mite. Paint it on roosts at 16 oz. per 200 lineal feet about half an hour before roosting time. The heat of the birds vaporizes the nicotine which permeates the feathers. Results are best when air temperature is above 70°F. Repeat the application in 2 weeks, and be sure that poultry houses are

well ventilated when you use nicotine sulphate.

Chicken Mite. Apply 4 per cent malathion dust to floor litter at 1 lb. to 40 sq. ft., and spray 1 per cent malathion water emulsion or wettable powder suspension on nests, walls and roosting places at a sufficient dosage to dampen them. Another method is to treat floor litter, roosting places and nests with 2½ per cent DDT spray. You prepare this by mixing 2½ lb. of 50 per cent DDT wettable powder in 5 gallons of water. DDT takes longer than malathion to get results.

Scaly-leg Mite. Soak the shanks of the birds' legs and feet in soapy water until the scales come loose. Then dip or paint the legs and feet using 1 part per 1,000 of lindane emulsion prepared from an emulsifiable concentrate. Another method is to grease the legs and feet with lard containing 15 per cent finely ground (micronized) sulphur, or you can dip the lower legs in crude oil, repeating the treatment in 1 month if the distorted scales have not been shed.

Depluming Mite. Dip the birds in a mixture of 2 oz. sulphur and 1 oz.

soap or detergent in a gallon of warm water. Repeat every 3 or 4 weeks.

All chicken lice. A single application of malathion is effective. In cold weather the simplest method is to broadcast 4 per cent malathion dust with a mechanical duster, shaker can or gloved hand at 1 lb. to 40 sq. ft. In warm weather you can use 3 per cent malathion spray, prepared by mixing 2½ pints of 50 per cent emulsifiable concentrate or 6 lb. of 25 per cent wettable powder in 5 gallons of water. Use a garden or power sprayer to dampen the floor litter, roosts and nest litter, and be sure to treat the sides as well as tops of roost bars. Lindane at 0.5 per cent water emulsion spray is also effective. The birds can stay in the pen during these treatments.

You can also treat for lice by dusting infested birds as a flock or individually with 4 per cent malathion. Use a rotary duster or shaker can at the rate of 1 lb. to 100 birds as a flock, or a puff sprayer for individuals at 1 lb. to 150 birds. Two puffs are adequate if directed to the vent and breast. Dusting is most effective for battery and range birds.

Roost paints are an alternative for lice control, but are less reliable. Paint or spray on roost a 3 per cent malathion water emulsion or wettable powder suspension at 20 fl. oz. per 50 lineal ft. In addition, spray 1 per cent malathion on nest litter to dampen it. Lindane is used in a similar manner, with 1 per cent at 20 fl. oz. per 200 lineal ft. on roosts and 0.5 per cent on nest litter. Nicotine sulphate at 40

per cent also makes a roost paint in well-ventilated buildings when inside temperature exceeds 70°F. Apply 16 fl. oz. to 200 ft. of roost. V

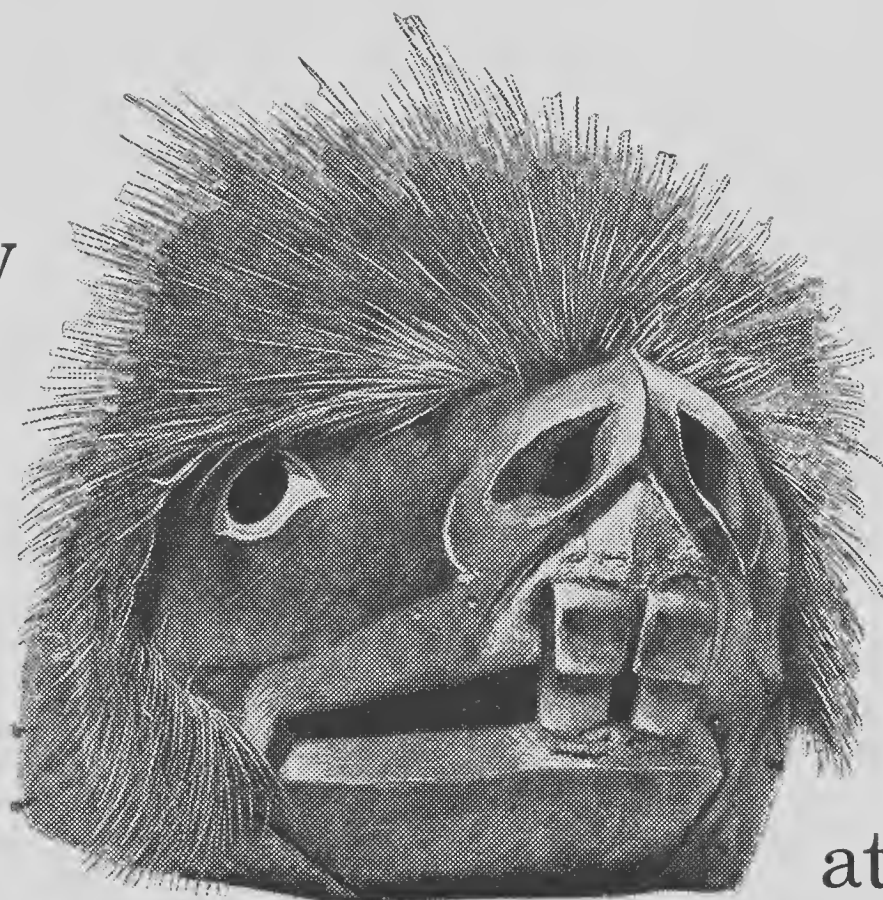
Eggs Are for People

EGG eating is costly when it is done by poultry instead of people. It's started usually when there happens to be a broken egg in the nest or some other place in the poultry area. Poultry specialists at Michigan State University recommend that you make oyster shell or limestone available at all times. It is a good plan to sprinkle lime grit or shell in the regular feed hoppers, or add 2 per cent limestone to the mash. These measures will improve egg shell quality.

Another way to tackle egg eating is to allow an individual nest for each 3 to 5 layers, or a community nest, 2 ft. deep by 4 ft. long, for 50 layers. But don't try to change your hens from single bird nests to community nests. The addition of more nests may help to eliminate egg eating, but it is even better to have a sufficient number of nests properly located at the start. Don't make nests too deep, or you will be contributing to more egg breaking.

When egg eating starts, the Michigan researchers advise you to gather eggs up to five times a day to reduce the risk of egg breaking. This is also a way to maintain the egg quality. Take care to provide plenty of absorbent nesting material. Remove broody hens to reduce fighting on the nests. V

You'll enjoy
working
like a
beaver



*Mask of the Beaver; B.C. Indian, late 19th Century.
Royal Ontario Museum, Toronto.*

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NOTICE OF DIVIDEND No. 50 United Grain Growers Limited CLASS "A" SHARES

Notice is hereby given that the Board of Directors has declared a dividend at the rate of 5% on the paid-up par value of Class "A" (Preferred) Shares (par value \$20.00 each).

This dividend will be paid on or about September 1st, 1960, to shareholders of such shares of record at the close of business on Saturday, July 30th, 1960.

By order of the Board.

D. G. MILLER,
Secretary.

July 5, 1960,
Winnipeg, Manitoba.

Do you want to make more money out of your swine operations? If so, then buy English Large Black, cross them with a Yorkshire, Landrace or English Large White and you will produce the fastest growing Blue Spotted and most profitable commercial pigs available. For full details, send for catalogue, cross-breeding folder and photos.

TWEDDLE FARMS
Fergus - Ontario

FARM BUILDINGS

Feedlot Has Over 200 Doors



[Guide photos]
Leo Gabrielle with young Bruce outside the tall "C.N." feedlot fence.

THE first thing you notice about the Gabrielle feedlot is that the initials "C.N." appear at regular intervals along the high board fence. This is not the trade mark of a local lumber dealer but of the famous railway system.

When Rene Gabrielle and his son Leo wanted to build a feedlot for their farm at Virden, Man., they went to the Transcona yards of Canadian National Railways at Winnipeg and bought the doors of grain boxcars that were to be broken up. The price was \$2 apiece and they took 300 of them.

The result is a large 175 ft. by 175 ft. feedlot that could easily accommodate the 130 feeder cattle they bought last fall for winter feeding.

Each door, 8 ft. high and 5 ft. wide, was jacked up to make a 9-foot fence, supported on treated posts. A barn extends along part of the north side and serves as loose housing, with straw storage on a section of the upper floor. The feedlot is divided down the middle by a long chute, with a squeeze at one end. This can hold up to 30 cattle at a time for TB tests, vaccination and spraying. Bedding is spread for the cattle in the western half, while the eastern half is used for feeding.

The feeding section contains a bunker silo with sides made of treated

boards (not boxcar doors) lined with \$22 worth of plastic sheeting. This holds between 500 and 600 tons of home-grown corn silage, which is fed free-choice as the main part of the ration. The plastic lining and a layer of straw bales on top have reduced spoilage to a minimum. Chop is available in outside feed troughs, which are filled by a wagon. There is also a small self-feeder for hay, but the cattle take only about eight bales a day.

The total cost of material was slightly more than \$1,000. And the Gabrielles have enough boxcar doors left over to build a shed.—R.C. ✓

Plastic Foam For Insulation

THERE'S a new kind of insulation for farm buildings. It's a white, lightweight plastic foam that is quite resistant to moisture and eliminates the need for a moisture barrier in most cases.

John Turnbull of the Ontario Department of Agriculture says the material can be bought in rigid 4 ft. by 8 ft. sheets, in thicknesses of 1 in. and 2 in. It is easy to cut with a handsaw. Two inches of this polystyrene foam has as much insulation value as 2 in. of mineral wool or glass fiber, but it's more expensive. The 2 in. foam costs 24 to 28 cents a sq. ft., whereas mineral wool is 5½ cents for an equal amount.

The price might be a discouragement, but the semi-rigid and moisture-resistant qualities make polystyrene foam especially suitable in some cases. Farmers with concrete or masonry walls and floors to insulate are especially interested, according to Mr. Turnbull. He says that in farm buildings where animals must lie directly on a concrete floor, there must be some means of holding heat on the floor. Take, for example, a swine-farrowing house where newborn pigs must be protected from chilling, especially during the first few weeks. A 1-inch layer of plastic foam insulation is laid between the soil and the finished concrete of the floor. A heat lamp shining on the floor can warm it up. Cheaper forms of insulation would absorb moisture and could not support the weight of the concrete slab.

Several farmers in Kent County, Ont., are insulating the floors of farrowing pens in converted barns this summer. They maintain proper slopes for the pen floors by leveling a layer of sand on top of the old stable floor. The sand is then covered with insula-

tion, a 2-inch layer of strong concrete is poured on top and floated to a rough textured finish. A stiff mix of 2 parts sand, 1 part cement and 2 parts stone is adequate.

In some buildings it's necessary to insulate the whole floor. In these cases, place a 1-inch by 24-inch strip of the rigid insulation below grade around the perimeter of the concrete floor. This keeps the heat in buildings such as milk houses, poultry houses and hog finishing barns.

Mr. Turnbull warns that polystyrene should not be used where temperatures exceed 175°F, or where cheaper insulation will work as well. The new foam insulation is stocked by lumber dealers now. ✓

How Much For a Building?

IF one company offers a poultry house for \$1.10 a square foot, and another company wants \$1.30, which do you choose? If the more expensive building offers better insulation and ventilation, think twice before you decide it costs too much. It could cut your feed costs by making the birds more comfortable, says Ross Milne of the Ontario Department of Agriculture.

Feed makes up between 50 and 60 per cent of the cost of producing a dozen eggs. Building costs are less than 10 per cent. By choosing a building which helps to cut feed costs, you might be able to save a lot, without increasing building costs too much.

Ross gives an example of a 10,000-bird poultryman who is netting \$3,000 and could just about net \$6,000 by reducing his feed costs from 4½ lb of feed per dozen eggs to 4 lb.

The same thing applies to hogs, only more so. Feed costs for growing out a hog run around the 80 per cent mark. If hog comfort is related to feed conversion, think about the saving in feed cost before stressing the saving in other directions. It is impossible, for example, to ventilate a poorly insulated building. Moisture must vaporize before it can be removed, and it will not vaporize in a cold building. ✓

Hay Shed Is Worth Cost

A LOW-COST hay storage shed is worthwhile, when you consider that hay spoiled in unprotected stacks runs from 25 to 40 per cent a year, say agricultural engineers with the Manitoba Department of Agriculture.

Hay storage sheds of 100 to 175 tons capacity can be built for 40 to 50 cents per ton of hay, discounted over a 20-year lifetime. This is cheap compared to losses of baled hay in the open.

Plans are available from the Publications Branch, Manitoba Department of Agriculture, 169 Legislative Building, Winnipeg. They show construction details of 24 ft. by 40 ft. and 30 ft. by 60 ft. sheds. The smaller is for 100 tons of hay and the larger for 175 tons. Both are built in sections and may be modified to any tonnage by adding or subtracting sections. Both sheds can be built quickly, since the main materials are treated poles and plywood. ✓



Interior view of feedlot shows treated posts supporting the grain boxcar doors.



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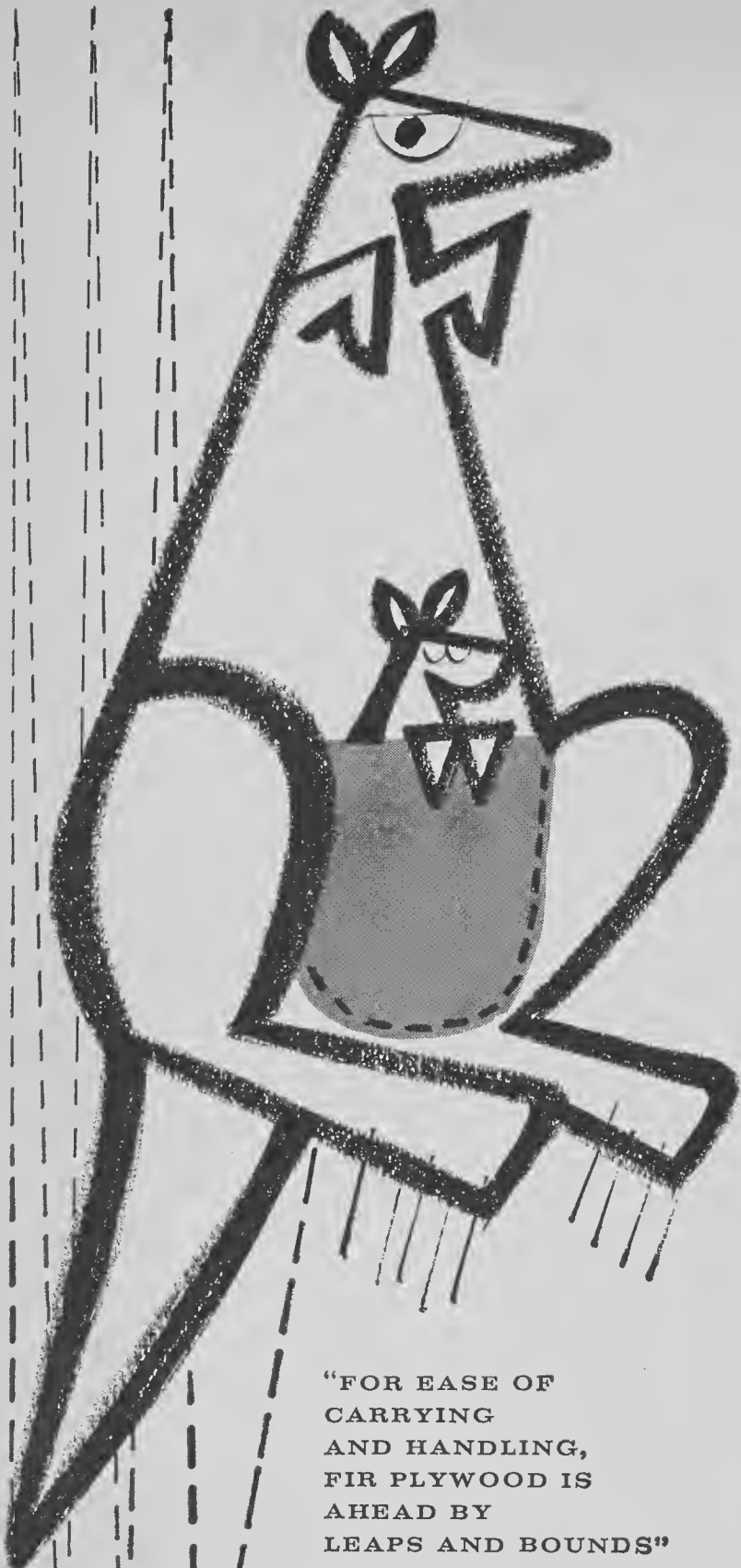
You save time, when you hitch the D6 to a big load, such as the 56 feet of rod weeders in the top illustration. The equipment is capable of covering 20 acres per hour, 200 acres per day.

You save trouble, when you assign the D6 to heavy work. Land clearing, for example, is hard on any master clutch. The exclusive Caterpillar Oil Clutch, standard equipment, takes shock loads easily and lasts up to five times longer than others.

You save money, too! One man, comfortably seated on the D6, can do as much work in a day as three men on typical farm wheel tractors. To increase the job range of your D6 and save money on implements, the No. 6 Tool Bar is available.

And that's not all! The D6 Series B is a completely new machine. It provides 93 fly-wheel HP, 75 drawbar HP, with 25% more lugging ability than before. Lifetime lubricated track rollers and idlers . . . no maintenance required during their service life. See your Caterpillar Dealer for complete details on the new D6 and matched equipment.

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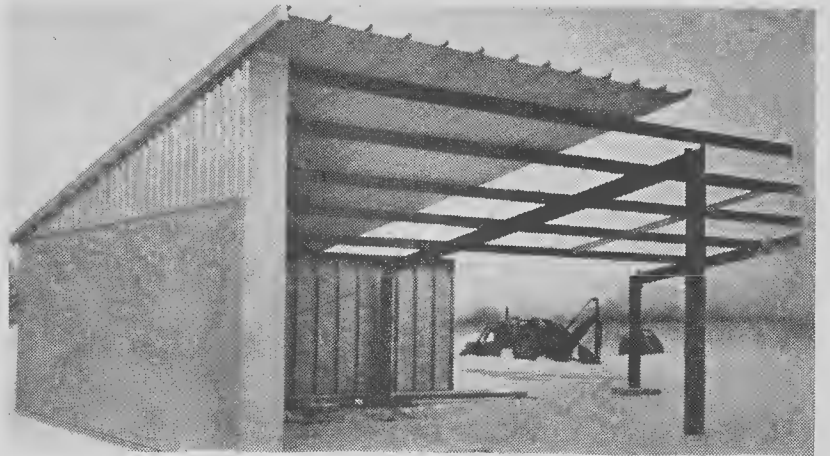
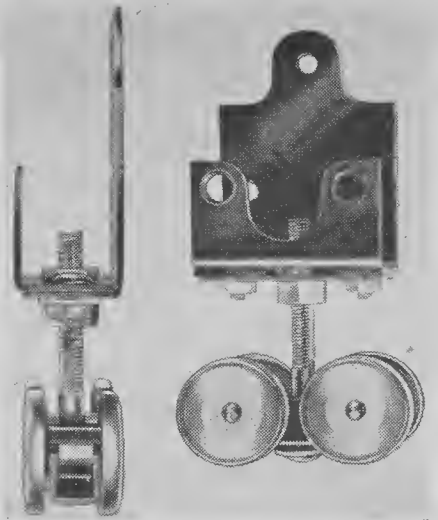
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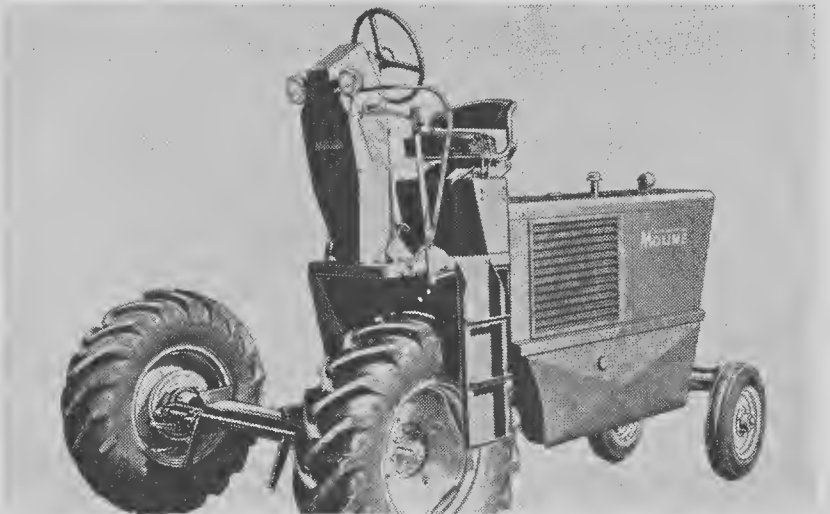
Door Hangers

These hangers apply to most sliding doors, including garage, barn and shed installations, whether doors are single or parallel. They take thicknesses of 1½ to 2¾ in., and weights up to 350 lb. Each pair of hangers is packed with two end caps for the track, and stove and carriage bolts for doors. (Stanley Hardware) (301) v



Steel Buildings

This is a sample of a line of steel buildings with clear spans or columns. The three basic styles of clear-span structures are the shed roof in widths of 5 ft. 4 in. to 24 ft.; gable roof, self-framing, 12 ft. to 32 ft.; and gable roof, rigid frame, from 32 ft. to 120 ft. wide. (Armco Products) (302) v

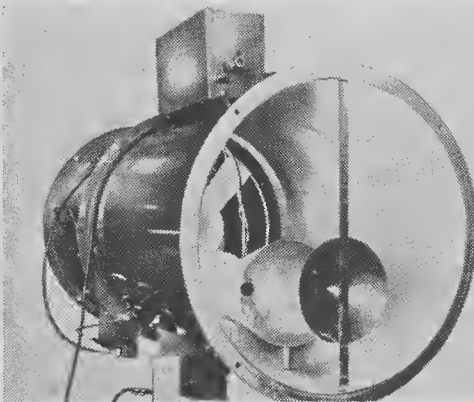


Uni-Tractor

The Uni-Tractor acts as a carrier and power supply for a large number of harvesting machines, using standard attachments to convert them into self-propelled units. It has a 56 h.p. engine, with speeds of .09 to 10 m.p.h. It has rear-wheel steering. (Minneapolis-Moline Co.) (303) v

Grain Dryer

Equipped with 21" or 24" fan, this heat unit uses LPG fuel and is a handy source of heated air for multiple layer drying of grain in storage bins. The burner output is 75,000 to 500,000 BTU per hour, and the burner shuts off automatically when humidity is low enough. (Lennox Industries Inc.) (304) v



For further information about any item mentioned in "What's New," write to WHAT'S NEW Department, The Country Guide, 1760 Ellice Ave., Winnipeg 12, Man., giving the key number shown at the end of each item, as—(17).

Continued from page 13

THEY BEAT MASTITIS

samples from each quarter of every cow are supplied to herd owners every 6 weeks. The samples are picked up by the truck driver during his regular milk pickup, and turned over to the Ridgetown laboratory. At the laboratory, each sample is tested for infection. (In this program, the California test is done in the laboratory so a veterinarian doesn't have to visit each farm.) Infected samples are cultured to find out just how severe each one is. If it's a problem case, sensitivity tests are made to see what antibiotics will be effective in knocking it out. Results of these tests are sent back to the dairyman himself, and to the local veterinarian that he specifies. Then, the veterinarian can recommend specific treatment.

While the program has worked well with this organized group, any individual farmer can work with his local veterinarian to carry out the same program. The only initial cost will be the call charge made by the veterinarian. The veterinarian will do the California test right in the stable and then send samples from infected quarters to a provincial government laboratory for a more detailed report. He can ask for a sensitivity test as well. Then, he can recommend specific treatment.

For continuing control, the tests and treatment must be carried out on a regular basis.

DR. DON BARNUM, mastitis specialist at the Ontario Veterinary College, says that this testing program is essential. But it is still only the start of a mastitis control program. Herd management is just as important. And in any outbreak, a dairyman must find out what is causing the disease. His veterinarian can help him find it, he says.

"Faulty milking procedure may be the cause," says Dr. Barnum. "Maybe the vacuum of the milking machine has fallen off. Maybe he's not dipping the teat cups or washing the udder properly. Maybe he is trying to run too many milking machines.

No man can run three milking machines, although he may think he can. Two is a maximum. Milking parlors may have led to the trouble, because they often tempt a man to increase the number of cows he is handling beyond all reason.

"Don't forget," says Dr. Barnum, "cows have a normal resistance to the disease. Infection must enter through the teat canal. In a normal healthy

udder, a waxy seal protects the entrance to that canal. If the teat is damaged or hurt, this seal might be broken. Then, infection can enter."

Since cows have this normal protection against infection, the first step in controlling mastitis is to stop reinfecting healthy cows.

In heavy outbreaks in a herd, Dr. Barnum says, it probably pays to hold off using antibiotics, except in severe individual cases, even after infected cows have been identified. First, find out what is causing the trouble. Then take steps to correct it. Once this is done, it's time to test again and begin treatment with

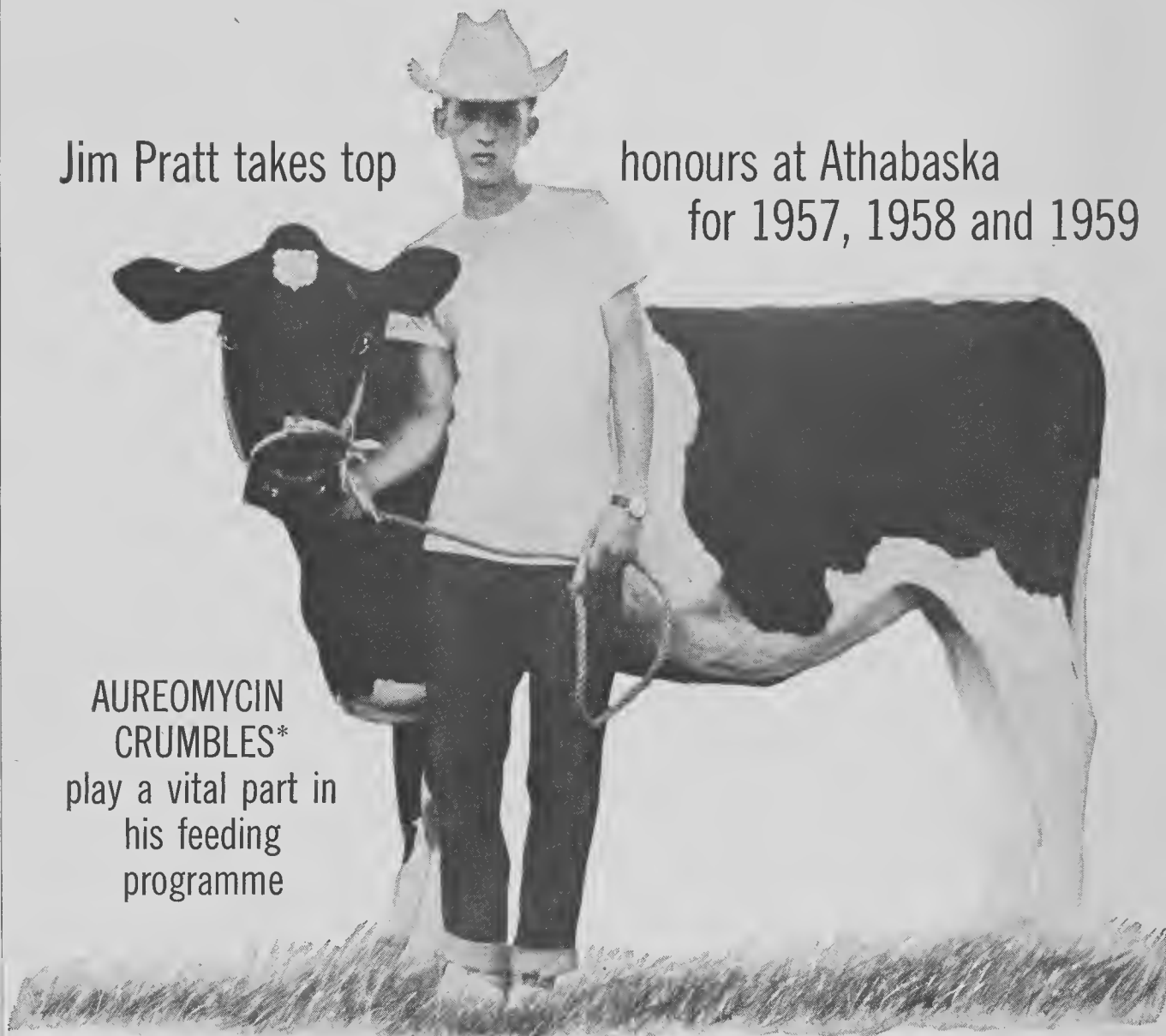
specific drugs to eliminate the infection.

Dairymen who have used the program, will cite benefits, like fewer veterinary bills to pay, fewer replacement heifers to bring along, and less worry about the herd. But Harry Wilson adds another which, in the long run, might be just as important to dairymen as any. He says: "Now that we have the disease under control, we feel a lot better about shipping the milk. We know it's clean milk, free from infection. It's the kind of milk we like to drink ourselves, and we think it's the kind that will keep city folk drinking milk too." ✓

Jim Pratt takes top

honours at Athabaska for 1957, 1958 and 1959

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his feeding
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Now, Jim and his father use Aureomycin Crumbles for antibiotic protection on all the heifer calves on the Pratt ranch. In their own words they

are "Getting bigger, better, healthier animals."

Aureomycin Crumbles can help you get your calves off to a vigorous start and help them make early low cost gains. Simply sprinkle Aureomycin Crumbles on the feed to help your calves fight disease caused by stress . . . to bring them through weaning without that 'starved out' look . . . and to cut down scouring too.

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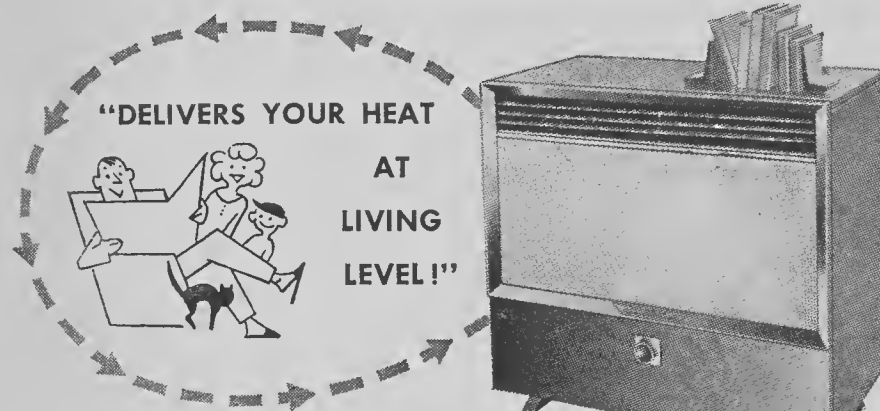
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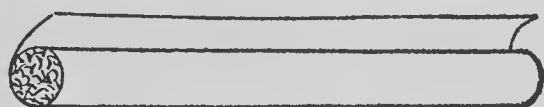
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Continued from page 14

ROCKHOUNDS AND PEBBLE PUPPIES



*Valuable pink and green jade rocks
The saw is used for shaping stones.*

although he makes no claim to being one. Recently his wife, Elsie (who is also Club secretary) has been urging him to give up accounting and start collecting and cutting stones on a permanent basis. As she points out, her husband has an international reputation as a mineralogist. Last summer he was asked to address the National Gem Conference at Portland, Oregon. Over 2,000 members attended.

His work has been recognized in the United States for many years. In 1925, the Denver Post headlined a mine story with "Canadian shows Yankies how to do it"—the Canadian, of course, was Larry Duncan. Another press story in Montana, years later, told how he'd redeemed a "dry" hole with a blast of nitro, and turned it into a 1,000-barrel-a-day producer.

LARRY DUNCAN has about 986 different kinds of minerals in his private collection. To get around the tedious job of polishing rock specimens, he is experimenting with a mechanical method which he hopes will polish 1,000 stones in 100 hours. This consists of a cylindrical tumbler which is divided into three compartments, each with a silicon carbide

grinding solution of different texture. After the silicon treatment, the stones will be finished with a mixture containing cerium oxide and scrap leather.

In summer, Larry leads his club members on rock hunting trips (called "caravans" in the jargon of the rockhound). One hunt last year drew 115 people and 55 cars. Many were tourists from widely separated points in the U.S. and Canada, who had just happened to hear that a caravan was in progress. So far, all the Calgary club's trips have been in the Drumheller district, along the fossil-rich banks of the Red Deer River.

"It would take 150 years to go over this area properly," said Duncan.

Caravaners do no digging whatever. They only pick up what lies loose on the surface. This rule was made so members wouldn't run the risk of damaging some valuable fossil. Their search might only cover about half a mile of river bank a day, but the ground is examined intensively. All "loot" is assembled and discussed when the hunt is over. This year, the club plans to hold week-end caravans so members can camp overnight.

How old do you have to be for membership? Well, 16 years or over if you aspire to be a rockhound. Members under 16 are called "pebble puppies." Larry himself is 70, although his looks belie this.

One of the keenest rock hunters in the club is a 6-year-old. Occasionally, when his legs get a bit tired he requests aid from the club leader.

"Mr. President, will you piggyback me for awhile?"

"We have 25 pebble puppies in our club," said Larry proudly. "There'll never be any delinquents among these youngsters. You see, we've awakened their interest in the natural world around them. This is good medicine for delinquent adults too," he added.

Continued from page 15

THE THREE-STAGE LAMB

range ewes to western Manitoba, along the Assiniboine River, where western grasses provide a high mineral feed and promote good bone growth. Ted has found on his farm at Millwood that his cattle always do well. Even when the land is broken up and reseeded to brome and alfalfa, the forage retains its special advantage over that grown on the Red River clays. He reckons these conditions put the range ewes into good shape and make them ideal for producing sturdy half-bred ewes from North Country Cheviot rams. When the half-bred is mated to a Down ram, the result is a top quality market lamb.

THE breeding program hinges on the supply of good North Country Cheviots. Members of the Assiniboine North Country Sheep Association keep record sheets from which they



(l. to r.) Ted Townsend talks things over with Geo. Thompson, leader of Bagot 4-H Sheep Club, H. Scotchmer.

can calculate an index number for each ewe. The index is based on the adjusted weight of lambs at 100 days and the ewe's fleece weight. The wool is estimated at twice the value of the

meat per pound. The formula works as follows: say a ewe has twin lambs with adjusted weights of 86 and 90 lb. at 100 days, and her fleece weight is 12 lb., her index number will be 86 plus 90 plus 12 x 2, equals 200. Another ewe has a good growthy single which makes 100 lb. adjusted weight at 100 days, and her fleece weight is 11 lb., so her index is only 100 plus 11 x 2, equals 122.

There are half a dozen members of the Association at present, and they do not expect it to become big. They would prefer to concentrate on good sheep breeding by men who agree with their ideas, rather than attract large numbers. A member must have plenty of good feed, and then he will be helped to improve his sheep. The Association will look after the marketing of half-bred ewes and ensure the supply of North Country Cheviot rams. They expect to find markets for half-bred ewes in Eastern Canada, and possibly in the United States, but this would result from a gradual build-up rather than a sudden boom. In addition, Association members will be able to sell purebred North Country rams for commercial flocks.

Long-term Benefits

THE objective, says Ted, is to get the Canadian commercial sheep industry into a pattern with a future, in place of the present hodge-podge. But they are still feeling their way and are dealing with ideas and probabilities. The scheme must be allowed to grow properly and yield long-term benefits.

A secondary objective, but an important one, is to improve native pastures and to lengthen the grazing season by selecting the right forage varieties. This would still enable the farmer to produce all the grain and any other crops he wishes. Ted points out that adding enterprises to a farm means competition for existing land, time and capital. Sheep compete less than any other enterprise, except for capital, and they can repay this rapidly. A man can keep 250 ewes almost as easily as he can keep 50, and still carry on his other farm operations without additional help. Lambing comes before seeding and shearing afterwards. He can grow all the grain he can sell under the present quota system.

The inevitable question is whether the introduction of half-breds will be an added cost in market lamb production. Ted Townsend agrees that a man can pick up an old ewe at the stockyards for possibly \$5, but the risk of loss is high and he has to use his first ewe lamb as a replacement, instead of selling it in the first year when it is worth most. On the other hand, if he gets a good half-bred ewe for about \$25, he can breed it to a Down ram for 5 years or more. He sells at least one lamb from it each year and reduces ewe cost to not more than \$5 per year, while turning a tidy profit from his sale of lambs. A new breeding program would help him. ✓

Continued from page 16

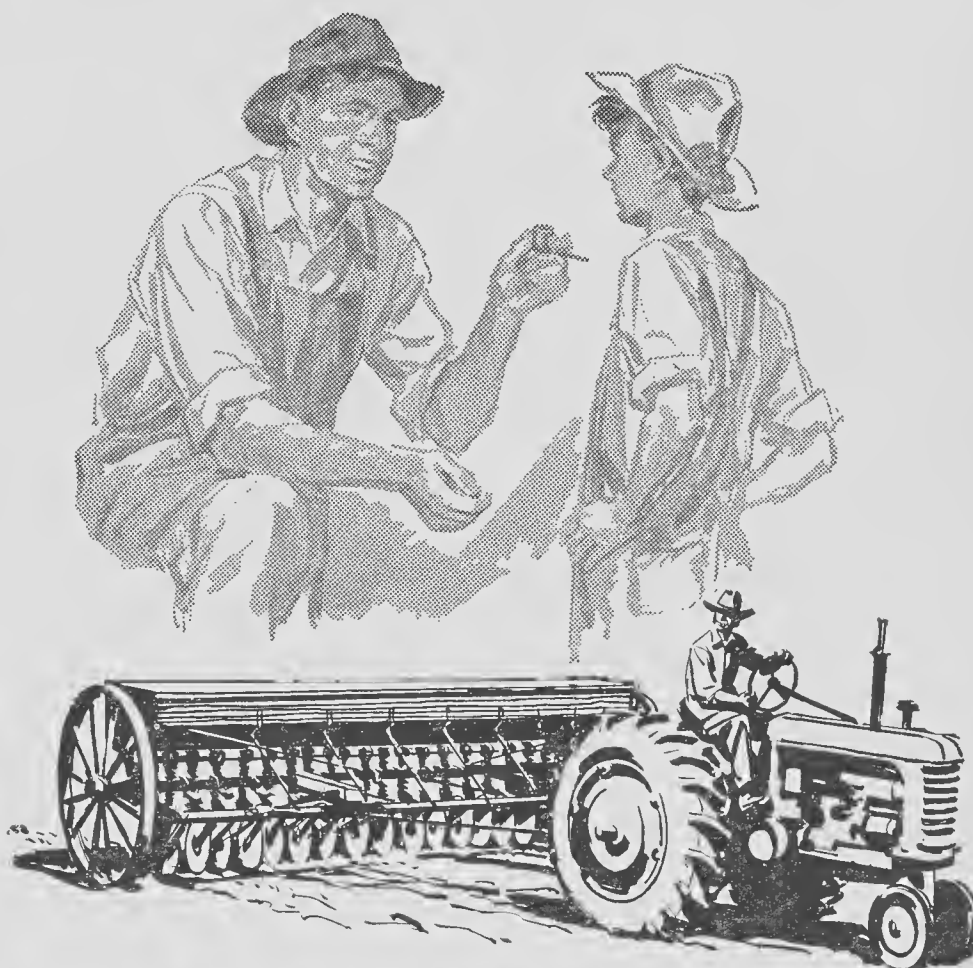
RETIRED FARMERS

helped with the milking until milking machines came in. Although he drove his car until he was 90, and thoroughly enjoyed being at the wheel, he confesses that he never drove a truck or a combine. He also kept his own and his son's houses and farm buildings in good painted condition and repair until he was too old to climb a ladder, only a few years ago.

This fine old gentleman has always enjoyed church work and he still at-

tends Sunday morning service regularly at the United Church. He used to enjoy going to the movies, he says, but he can no longer catch the dialog. However, he is able to hear a sermon with his hearing aid. He also loves to play Crokinole and Chinese checkers and still enjoys a game whenever he can find someone to play with him. He admits that he gets a bit lonely at times now as so many of his old friends are passing on.

Mr. Loveridge reads a good deal, a few books, but mostly papers and magazines. He also likes to write letters and still retains a fine, legible hand. He has correspondents all over the country, including this writer. He



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☐ French

did a great deal of traveling until recently and was always a welcome visitor at our house in Winnipeg.

Today, Mr. Loveridge lives with his daughter, who is a good housekeeper, he says, and no "gadabout!" He leads a simple life, going to bed around 8 or 9 and rising at 7. His first duty is to wind the 100-year-old clock, which still keeps perfect time. He then gets the breakfast and after that goes for the mail. His health has always been excellent. He has never had to go on a diet, is always ready for a good light meal, and sleeps well. His doctor, who examined him a short time ago, told him he was good for at least 10 more years!

I SHOULD like to include, very briefly, a reference to my own husband, Major H. G. L. Strange. In his way, he comes into the category of retired farmer, because he farmed at Fenn, Alta., from 1920 to 1930 and achieved a modest measure of success as a seed grower there. From 1930 to 1954, when he retired, he was director of the agricultural research department for the Searle Grain Company of Winnipeg, and was constantly in touch with his many farmer friends.

I mention my husband because he has filled his time since his retirement with one of the most interesting and unusual hobbies of any that I know. (Owing to a serious heart condition, he cannot take on any community work.) His hobby is one that he enjoyed as a boy, but never had time for during his long working years. It is the study of the microscopic world.

My husband is now the proud possessor of a beautiful Zeiss microscope, complete with many accessories. He also owns an elaborate microprojector, a machine which throws objects seen through the microscope on to a screen. When used with polarized light, they are revealed in all their intricate design, color and beauty, sometimes astonishing to behold. By means of his microprojector, too, my husband is able to share his many "discoveries" with his friends.

Microscopy is a hobby that never palls and it has practically no limits. Some of the fields in which the microscope can be employed are in a closer study of botany; in watching the beginnings of life in all its many forms and particularly the germination of seeds; in analyzing the contents of ponds, streams and rivers; in the observing of insect and plant life; in the examination of geological specimens; and so on and so forth. The problem is to know where to stop!

Microscopy also has an advantage over other hobbies in that it can be put aside and picked up at any moment and, wherever one may go, there are always objects at hand that can be a constant source of interest and pleasure.

I must say that my husband's microscope has enabled him to enter a new and wondrous world. In the last few years it has kept him completely happy and fully employed. If any farmer — or, indeed, anyone else — is contemplating retirement, and is wondering what he will do with his time, I suggest that he consider microscopy. My husband, I know, would be only too happy to advise him and pass on to him such knowledge as he was acquired.

Illustrated by WALLY BATTER



by MARGARET MUNK

PAPA said Hattie Pearl took after the Tallers, on Mama's side of the house, and that accounted for her being so short and fat and so tongue-tied around the menfolk. He said she was the living image of Aunt Comfort Good, who was Mama's full sister and who had never been able to catch herself a man though she had fished the pond of unwed suckers for 50 some odd years. She spent the last years of her life in front of the kitchen stove with her feet in the oven, knitting single socks for long-legged men and 9-foot mufflers of fire-engine red.

Papa said if Hattie Pearl didn't mind her P's and Q's, she would end up just like Aunt Comfort, toasting her bunions and clicking her false teeth to the tune of her No. 3 needles.

"You got to get out and get the air about you, girl!" Papa would tell her when she was well past 30 and the moss was beginning to cover her north side. "You got to use bait, and

lures, and a good strong line. You got to employ all the wiles of a crafty fisherman if you're going to land one of them big deep water boys."

But Hattie just didn't have enough get-up-and-go to get out and grab herself a man. She just sat by the stove and knitted while Papa fumed and fussed.

Threshing time was like the first day of fishing season to Papa. He always chided Hattie into wearing a new print frock. He'd tell the whole hungry crew what a little dandy she was and how she could cook and clean and how children just loved her, but the only one who seemed interested was a Swedish bachelor, named Lars, who lived with the Hedricks on the Big Six. He came around every night for a week but since he couldn't speak very good English, it was hard for him to get through to Hattie. Once or twice he spied off a lot of foreign phrases that didn't sound just right to

her, and she got all upset over what she thought he said, and broke out in a terrible rash that itched like crazy. After that, he stopped coming except to help Papa put up hay or harvest the potatoes.

IT began to look like Hattie would be around for a long time to come and that upset Papa. Not that he wasn't fond of his eldest daughter, but he just couldn't get it out of his head that she was the one crop he hadn't been able to harvest.

It got to be Christmas time, and Mama started making pies and fruit cakes, the way she always did for the holidays. Us kids made fudge and taffy and popcorn balls, and Papa brought home a bushel of delicious apples and a crate of oranges. It was in the apple basket that we found the note, or rather, I found the note, and Oric grabbed it away from me, tearing it in half. Then Mama cracked the both of us on the head with her knuckle and took the paper over to the supper table to read it to Papa. It wasn't much really, just a man's name and address, then across the bottom a pencilled request that said, "please write."

Papa took the note and fitted the pieces together in front of his plate. He took a bite of buttered biscuit and chewed with the muscles of his jaws jumping like tadpoles.

"Ansel Winn," he mused. "Sounds like a nice sort. Probably single and terribly lonely." He swallowed. "You know, I think me and Hattie Pearl will just drop this boy a line."

"Here we go again," Mama sighed. "Why don't you just leave the girl alone, Papa? She's happy."

"Because the Lord didn't mean for a good healthy girl like Hattie to just

set on her rocker and knit," Papa declared. "And I won't rest till she's doing what she ought to be doing!"

Mama just looked at Papa then, and started to clear off the table. She dipped hot water out of the reservoir and began to do the dishes without another word. Me and Oric had to dry, but we could hear Papa over in the corner with Hattie Pearl, talking about what to write to the apple man from Yakima Valley.

A week went by and then another. It was the first of the year and everybody had the blues because the weather was bad and we couldn't get out. Mama mended clothes and cleaned out drawers and Hattie Pearl started to knit an afghan but ran out of yarn. Me and Oric built a tent in the corner over the Maytag washer and played Indian under the washstand. Papa put his teeth in the cupboard and slept.

THEN one day we heard the old Model T that the mailman drove stuttering out in front and there was a letter from Ansel Winn. Hattie Pearl got to open it and we all sat around the oven door where kindle wood was drying, to hear what the stranger had to say. First off, he explained that the reason he wrote the note and put it in the apple basket was because he always wondered where his apples went. He thought it was real nice of Hattie to write and he thanked her for the trouble. Then he told us about the place where he lived, a small fruit farm in the lower valley, and said that he was a widower with one small son.

There was more concerning the weather and then the part that thanked Hattie again and told her how kind folks had written from all over the country and how grateful he was.

"Well," Papa said, examining the sole of his calloused foot, "we found out he wasn't married anyway."

"Yes, and we found out that he had letters from all over the country," Mama pointed out. "And some, no doubt, with the same idea you had."

"That is to be expected," Papa propped the other foot up on his knee. "Where there is a hungry fish, there is bound to be fishermen."

At Papa's suggestion, Hattie waited a week before answering, so she wouldn't appear overanxious and scare off her prey.

THAT was the beginning. Through the early spring and on into summer, letters flitted back and forth growing more and more heated because of their ingredients. Then one day in August Hattie opened her Yakima letter and turned shades of pale green. She gasped and then sank down on the sofa, still holding the terrifying message in her limp hand.

"Whatever is the matter, Hattie Pearl," Mama asked, rushing to apply a damp wash cloth to her daughter's forehead.

"He's coming here," Hattie croaked.

"Ah ha!" beamed Papa. "The big boy has struck! Now all we got to do is reel him in."

(Please turn to page 38)



"It won't be as easy as you think, Papa," Mama said. "Look at that girl! She's in no shape to hook a man! Why, you'd have to prop her up and hire a ventriloquist."

Papa looked at Hattie Pearl, and he scratched the top of his head where the hair had grown thin. He walked the length of the sofa, turned



on his heel and came back for another look.

"I will think of something," he said.

Ansel Winn was scheduled to arrive the following Saturday. This being Tuesday noon, Papa didn't have much time to organize his thinking, but late Tuesday night his face lit up like a Halloween lantern and he announced with much enthusiasm, "I've got it! Tomorrow we will go to town."

Early next morning, at the first crow of the rooster, we jumped out of bed and got the choring done, then quickly consumed our breakfast and started to town.

THE streets were deserted except for delivery trucks and a few out-of-town cars parked at the hotel. Papa parked in front of a stylish dress shop and then we had to sit and wait till the lady came to open the door. We were her first customers and she seemed quite surprised when we all piled out of the car and came marching in.

"Well, good morning," she said, bobbing her marcelled hair. "What can I do for you folks?"

"We want a dress for our daughter, Hattie Pearl," said Papa, pushing Hattie a little out in front.

"Oh, yes," said the lady, taking mental notes. "What size?"

"Large," said Papa.

"Ah, yes," the lady smiled. "Now, do you have any special color in mind?"

"Red," said Papa.

"Blue," said Mama.

"How about this?" said the saleslady, holding up a black tent-looking affair.

"That's black," Papa told her.

"Well, a dark color would really look better, sir. It helps to slenderize."

"Here's a pretty purple one," Mama said, holding the dress out for Hattie to see.

"We don't want her to look like an eggplant," said Papa. "We want her to look like a big juicy, red apple, ready for picking."

The little saleslady's eyes twinkled, "I think I have just what you want," she said, and quickly stepped into the back room.

"Papa," Mama scolded, "how could you say such a thing!"

"It was just an idea," Papa said. "When you bait your hook, you have to consider what you are trying to catch."

Just at that moment the shop lady came out, holding a brilliant red dress that shimmered in the early morning light, and she motioned Hattie Pearl into a little closet. We waited and in a little while, out stepped Hattie, full blown and beaming.

The dress she wore fitted tightly about her top half and blossomed into a great round balloon of skirts. She seemed to spin like a turning apple ready to fall and her eyes fluttered as pretty as a moth.

"We'll take it," said Papa, fishing out his wallet.

The little lady wrapped the box carefully, and, as she was passing it across the counter, she paused and added a sprig of green berries to the bow. "Wear this in your hair," she said.

THE rest of the week tottered by and then it was Saturday and time to meet the train. We got to the station ahead of time and Papa suggested we take a walk around the block so Mr. Ansel Winn wouldn't think we had been waiting. We were nearly back to the station when we heard the train puff to a stop. Papa made us walk slow and he kept a tight hold on Hattie's arm to give her strength and courage to keep her from running away.

It wasn't hard to spot the apple man from Yakima. He was the only one who got off the train. He stood holding his bag, and looking up and down the platform. His suit was brown, and his skin was brown and his hands were gnarled and heavy. He was 6 feet tall, bony and loose, and his face knew the turn of the weather.

What happened then is hard to describe. Their eyes met and something like lightning flashed as the two of them touched hands in the middle of August. It was strange and unusual like a dream, but I saw it and later Mama told me it was love.

Now Hattie is gone to the Yakima Valley and Papa is happy. We went down there once because Hattie wrote and asked us to come. It was before the spring planting and the apple trees were in blossom. Everything looked pretty and Hattie had a nice home with the Yakima man but still she didn't give up her knitting. The first thing she did when we all got settled down to talk was to take up her needles and yarn.

"What are you making now?" Mama asked.

And Hattie said, "Soakers." ✓



[Guide photos

All set and raring to go, Lizzie is equipped with a Ruckstell axle which will keep going in just about all road conditions found on the Prairies.

Lizzie Was No Lady

by CLIFF FAULKNER

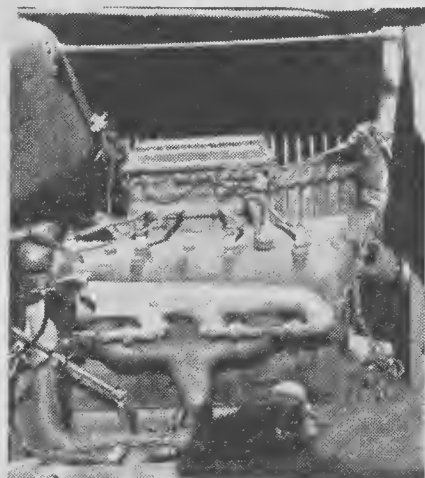
TO the farmer of the early 1900's, the Model T Ford was the original flying saucer which enabled him to go spinning away into outer space. In those days, of course, outer space meant nothing over 5 miles away from the farm. For the Model T spelled an end to the isolation of rural life. It took the farm family to town, church, or to the country fair. Early models came in a wide range of exciting colors—black, black and black.

The first Model T appeared on October 1, 1908. It became a world institution, a personality and the butt of countless jokes. Between 1908 and 1927 over 15 million "tin Lizzies" were built, 755,000 of them at Ford's Canadian plant. When Henry Ford built this car he admitted it wasn't the best he could do, but he had made it so it would "run through anything." It did that all right, and, in some cases, is still doing it. Another Henry—Henry Ackerman of Millet, Alta.—will vouch for this.

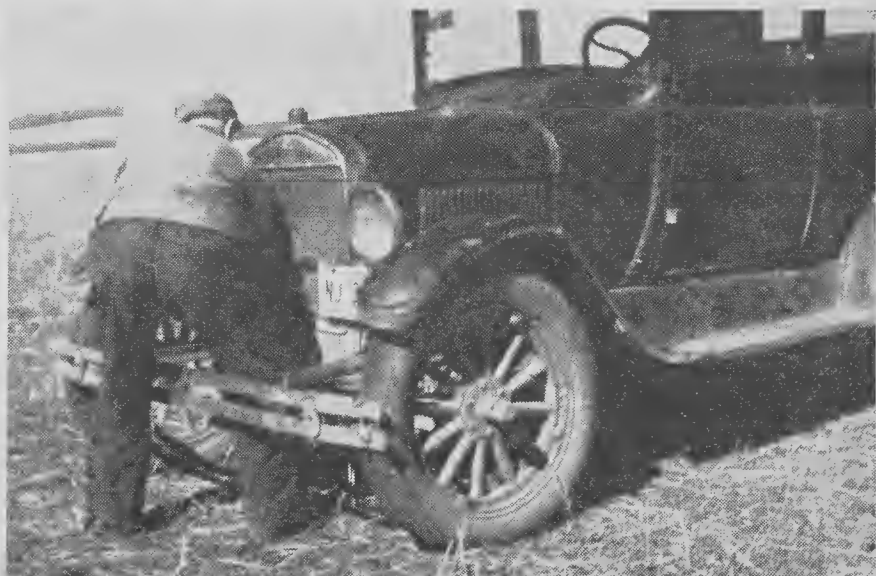
Ackerman bought his Model T, second-hand, for \$50 (including the license) in the early '30's, and 15 years ago he installed another motor which he purchased for \$1. He decided he would sell old Lizzie recently for \$150, or a profit of 200 per cent on his original investment. He couldn't have done as well if he'd put his \$50 into Government bonds. ✓



Henry Ackerman proudly displays the safety tests his Model T has passed.



This is the power plant Henry purchased for only a dollar 15 years ago.



When the battery is run down a bit, Henry has an alternative starter that never lets him down. It will awaken memories in many who see this picture.

Home and Family

The Country Guide's magazine for rural women

Sportsmen . . .

In our times the fanciful imaginings of the ancient philosophers do not appear quite so strange. With each successfully launched rocket we come a little closer to the time when men will travel into space to probe its secrets. Already imaginative men and whimsical children speak of becoming landowners on the moon. But, in spite of all our advances on scientific fronts, perhaps because of them, earthbound pleasures still remain a source of deep inner enjoyment.

In our young angler's world, all is well. On a warm summer day, chores done, you'll likely find him at the edge of a stream, or hugging a bridge railing. He's trying his skill at a sport almost as old as man himself. Our young man's needs are few: a fishing pole, or Dad's old and well-used rod and reel, a sinker or two, a few hooks, a can for worms for bait. Whatever his equipment, the world at the moment belongs to him.

Sometimes a boy needs an active, vocal, muscle-building sport to use up his excess energy. For him, it may be a fast-moving ball game with dirt sliding out from under runners that dig in to make a base, or balls that thump into an oversize catcher's mitt. Game or practice, it's a fast moving kind of recreation that helps to build strong bodies and trains the eye and mind into the grace of co-ordinated action.



[Don Smith photo]



[Miller Services photo]

and Sportsmanship

Sports help to develop strong bodies; they also help to develop precious qualities of character. The fisherman learns to respect his adversary; he acquires patience as he subtly pursues his quarry. On a baseball team, young people learn to play together; they find they score when they put their individual best forth to make a strong whole.

Our fisherman may lose his fish at the water's edge; the baseball team may lose an important district series. But the loss itself is not nearly so important as the manner in which they, individually and as a team, meet the loss. Isn't this the test of the sportsman?

The true sportsman, be he skilled or unskilled, will always be challenged by the competitive spirit basic to all sports. Yet, he plays for the sheer satisfaction of playing a good game; he's in the game, not so much to beat someone else, but to give his best to something he thoroughly enjoys. In this way, he meets the test of sportsmanship.

He accepts the premise that he may not always win. And he'll go back to try again in the tradition of those who opened new worlds and new activities for him to conquer. V

by ELVA FLETCHER



The old milk house as it is today. Bricks from an old smoke house were used for the porch. Its door leads into a cool dark room which stores the farm's best fruit.

*A later generation finds
a new use for the*

Old Milk House

by DORIS MEEK

THE great-grandmother of our family came as a bride 80 years ago to the farm which my husband, her son, now owns. She had watched with pride the building of the big, brick house in which we live and the barn raising. Yet she rarely disapproved of the gradual changes we made. She knew our pride in our home equalled her own.

She liked the big living-room — enlarged by tearing down a partition — and its new fireplace; she enjoyed the sunroom built later. She grieved a little when cedar and spruce trees and hedges were pulled out because they had grown so big they obscured the view from every downstairs window; but she liked the flower beds I then made, and she approved of the landscaping planned and carried out, bit by bit, by her son.

Great-grandmother realized that the decision to paint the barns would result in a general clean-up involving the demolition of several dilapidated buildings to which she was attached. Yet her only comment was that she was glad the old milk house was spared and kept in good repair.

"It was already old, you know, when we bought the farm," she told me one day as we approached the picturesque, two-storey building which stands firmly on a stone foundation deeply embedded in the sloping lawn. "We pulled down the old frame house beside it and the dilapidated barns; but we cherished this little red-brick hut and I used it for many years."

She opened the outside door and we went down two steps into a tiny porch. The second door, made from thick heavy planks, swung inward and we entered a cool, dark room with three small windows, all of them partly shuttered.

"I see the spring is overflowing," great-grandmother said, walking to the far end of the room. As her eyes became accustomed to the gloom, she bent over and dipped a cup into a circular, stone-lined basin where crystal clear water continually welled up, spilled over the rough, red-brick floor and flowed into a little drain.

"Ice-cold and pure," she said, sipping contentedly. "Nowhere else have I tasted such good water. I've carried many a pailful to the men in the fields on hot days."

Then, noticing cobwebs in the corners of the room, she told me that in her time she kept it spotlessly clean. Each spring the walls were whitewashed and she'd tack old, clean sheets to the oak ceiling beams to catch dust and the small pieces of bark which fell from them when the hired man clumped around his summer bedroom above. And each week, until late in the fall, she flushed the floor with water from the spring.

"But that isn't necessary now," she said, looking at me somewhat disapprovingly, "for you are a modern farmer's wife and buy milk, cream, butter and bread at your door."

In her big day, shallow earthenware bowls were filled with milk every day and left on the cold, wet floor for 24 hours while the cream rose. "Such cream you never saw," she said, "thick, yellow

and sweet-smelling!" In later years she put the milk in flat, tin pans which weren't so heavy. We still have the satin-smooth stick she used to stir the cream that was kept in a big earthenware crock until enough had accumulated for churning.

FROM an early age, great-grandmother's three children worked at tasks about the farm. But the old dash churn had been superseded by a barrel churn before they were old enough to help with butter-making in the milk house during their summer holidays. Sometimes butter would be slow in coming; and, as they listened to the slap, slap of the cream in the barrel, the children — one after the other — would turn the handle of the churn until their arms ached. Occasionally one of the boys would run away and miss his turn.

"I always gave the children a treat when they finished churning," great-grandmother told me. She smiled as she recalled hot days when three little figures, sitting on a cool stone step, dabbled bare feet in the water on the milk house floor while she handed out cups of buttermilk and slices of crusty, homemade bread spread thickly with fresh butter.

Great-grandmother's butter was always in demand. When she first was married she pressed it into small crocks holding two, three or five pounds which great-grandfather delivered to special customers on Saturday morning. In later years, working at a small table in the milk house, she shaped it into pound blocks using a butter print.

WHEN I came to live on the farm, butter-making days were over. The little milk house—used for storing root vegetables in the winter—stood neglected and forlorn. The frame porch leaned drunkenly to one side; birds pecked at mortar loose between the bricks; and rain dripped through the mossy, gray shingles onto the thick, wide floor planks of the room where the hired man formerly slept.



Great-grandmother is shown here with her son. She liked the new look given to the old milk house. This is the tiny outdoor living room.

"I don't want to lose the old place," my husband said. So, painstakingly, he rebuilt the little porch with brick from an old smoke house demolished years before. He brightened the roof with red shingles; painted the woodwork cream to match our house; and, where the roof projected for seven feet, made a miniature outdoor living-room with trellised walls and cement slabs for a floor.

We built a small rock garden near the new porch and planted dwarf, spreading evergreens to hide the rough foundation stones. Our little house now seems to hug the sloping lawn. Each year in June a deutzia bush displays its dainty, snow-white flowers beside the scarlet roses that scramble up the trellises. The heady fragrance of mock orange blossom attracts tiny, ruby-throated humming birds; and at dusk, on balmy evenings, fireflies flicker around the bushes.

In October—when the men are busy with the apple harvest—my (Please turn to page 42)

This is Brookhills Farm today. A corner of the milk house roof peeks through the bushes to the left of the sunroom with its large picture windows.





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.....



This fall try planting flowering bulbs for spring color in the garden. They're also pretty under trees or near shrubs.

"WHAT I'd like," said the busy young farm wife, who manages a home, cares for three active children and an invalid mother-in-law, and runs the tractor during busy seasons, "is a flower that looks like a million dollars, costs only a few cents and takes only about ten minutes' time."

Believe it or not, there are such flowers and I found out about them from a young Dutch woman who lived on a neighboring farm. She had six children, yet from April until mid-June her garden was a rainbow of gorgeous bloom. Her secret . . . Dutch bulbs. She planted them in the fall, and left them to their own devices until the next spring. Then they provided her with a riot of color and armfuls of flowers for sharing with church and friends.

Why not try planting some bulbs this fall? Of the spring-blooming ones, tulips can be safely left until last. As long as they get into the ground a couple of weeks before it freezes, you have nothing to worry about. However, crocuses, hyacinth, narcissus and other bulbs should be planted in early fall so they can develop good root systems before cold weather comes.

A bulb garden can be extremely varied and versatile. There are the fantastically-colored tulipa Kaufmaniana, which are the earliest tulips, followed in April by the majestic Fosteriana of which Red Emperor is the best known—and there are both single and double varieties.

For May blooming, there are a host of beauties in such varieties as Mendel, Triumphs, Darwins, Late Doubles, as well as Cottage, Breeder, Parrot, Lily-flowered, Rembrandt and Bizarre.

The bulbs you plant will depend on your personal preferences. You're sure to enjoy lily flowering tulips with their pointed and recurving petals. Mariette is a specially pretty one. Maytime, which is a dark red-violet, is another beauty. White Triumphator is an enormous white lily tulip, so beautiful that it has been used in bridal bouquets. Queen of Sheba, which is an unusual brown-red with an orange-tinted edge, is another.

I am partial, too, to the double tulips which are as ruffled as any rose. Although the first Dutch double tulip was the "Yellow Rose", which was cultivated in 1700, doubles are still rare enough in gardens to provoke such

Bulbs Are a Boon

by FRANCES BALDWIN



[Malak photos]

comments as "What are these? They can't be tulips!" One double I especially recommend is Eros, which has a very large flower in an old rose shade. Another beauty is the all-white Mount Tacoma. Or you might like Comtesse which is lilac with a white base.

And of course, every spring garden should include some Darwin tulips, those tall, stately flowers which are the aristocrats of tulipdom. Darwins grow between 2 and 3 feet tall, so plant them at the back of your border with your single early tulips and doubles in front.

Long-stemmed Darwins come in every conceivable shade from white to almost black. Two of my favorites are Clara Butt, a salmon pink, and City of Harlem, a deep red. Dutch bulb exporters have been sending both of these tulips around the world since the end of World War I, and they are still favorites. Among newer Darwins, you might like Red Pitt, a new scarlet; Anjou, a very large canary yellow tulip with a buttercup yellow edge; Pandion, a purple tulip with a white edge; or Queen of Gardens, a brilliant satiny pink.

WHILE tulips are my favorites for a flower border, daffodils are the answer for ringing shade trees with bloom or softening the hedge row.

King Alfred remains the favorite yellow daffodil, but I am also partial to a pure white one called Mount Hood. Another beautiful daffodil which is not too well-known yet in Canada, is Cragford. It produces a pure white flower with a brilliant scarlet cup. Cragford, incidentally, is also an excellent daffodil to force for indoor bloom. Besides being beautiful, it is intensely fragrant.

Plant some double daffodils, too, which are as tight and curly as sweet-heart roses. My favorite is Indian Chief, a yellow touched with curls of bright orange.

Prepare the soil for bulbs the same way as you would for a vegetable garden. Before planting, work in some humus and a complete fertilizer. For humus, you can use peat moss, material from your compost heap, or well-rotted barnyard manure. Apply five or six bushels per 100 square feet.

How deep should the bulbs be planted? Follow the directions on the bulb chart, and remember that a bulb garden should be well drained.

Bulbs have an added advantage: they bring beauty not just for one spring but for many springs to come. Leave them in the same spot for 4 years or so. When they become too crowded, dig them up, dry, clean, separate, and replant them.

Tulips can be left to bloom undisturbed for about 3 years. Then you will want to plant new bulbs which will give larger blossoms, and move your 3-year-old tulips to the cutting garden behind the vegetable plot.

Bulbs have another advantage—they are large enough that even a 5-year-old can plant them easily. (All he has to remember is that the pointed tip must be up.) Plant them now. Then, next year, you and the children will see in the first tulip or daffodil to burst through the soil one more sign that spring is on its way. ✓

Old Milk House

(Continued from page 40)

husband brings to the milk house 20 or more boxes of the most perfect, luscious fruit he can find. He places them on a thick, wide shelf suspended from the ceiling beams by four heavy wires. In the moist atmosphere, the apples will keep perfectly until April if an electric bulb is kept burning in zero weather.

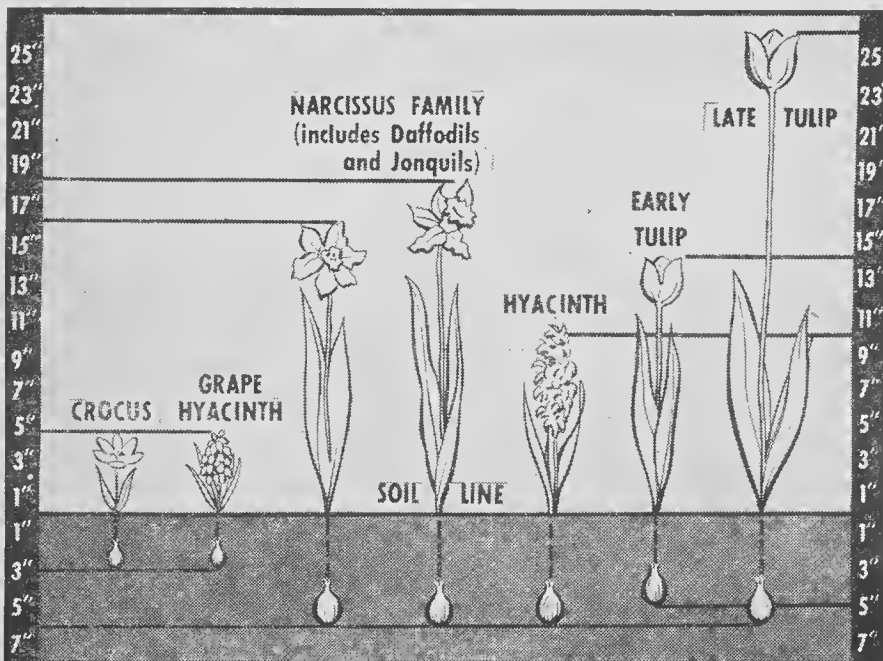
How my husband delights in bringing out big bowls of rosy McIntosh, Snow, Delicious or Northern Spy apples for his guests as they sit around a blazing fire in our cosy living-room on cold winter nights! And he enjoys his friends' surprise when, in March or April, he takes them into his quaint storehouse to show them that the remaining apples are as crisp and delectable as those they enjoyed in December.

Times have changed and our old milk house—still cherished—has become an apple cellar where we store our choicest fruit. And, although great-grandmother is no longer with us, we shall continue—as long as we are able—to care for the farm she loved so well for 80 years. ✓



This is the milk house before its face-lifting. Now it's an attractive addition to the Brookhills Farm.

Bulb Planting Chart



Classroom Clothes



No. 9156. Always in style, this jumper dress is slimly tailored with a back zipper closing and kick pleat. Wear it alone or with any one of the four blouses in the pattern package. Jr. sizes 9, 11, 13; Teen 10, 12, 14, 16. Price is 50¢.



A pre-school check of last year's classroom clothes will tell you it's not only weeds that grow that way through the summer months. You will find real value in multiple-style pattern packages, some of which are illustrated here. There are styles and sizes to suit tots off to nursery school or kindergarten, for first graders and teens.



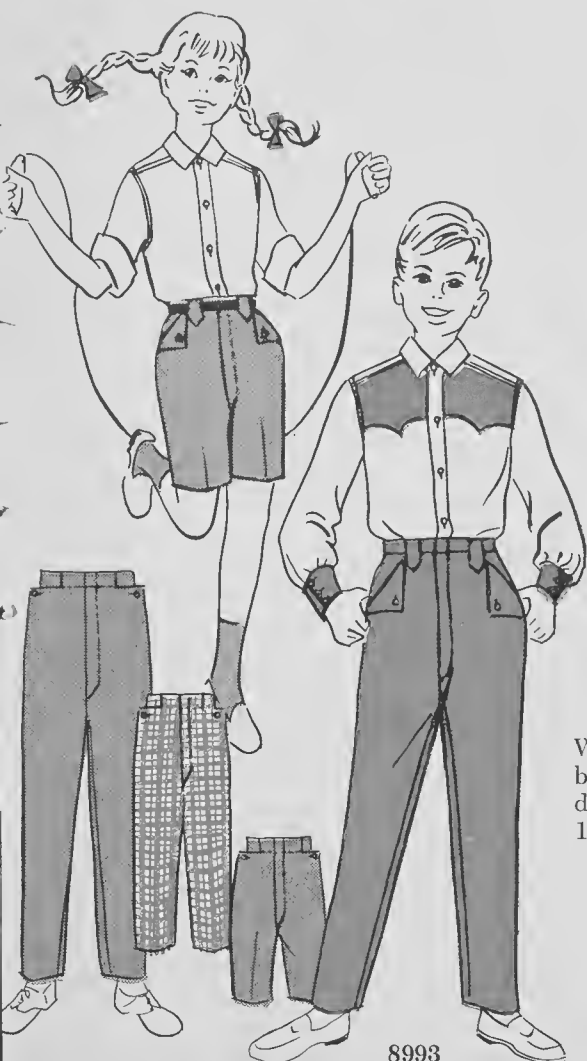
9159

No. 9159. The six dresses illustrated above can all be made from just one pattern! The difference is in the trim. Available in girls' sizes 1, 2, 3, 4, 5, 6. Price is 40¢.

No. 9455—This four-way pattern offers a scooped-necked jumper and a suspender skirt with a choice of pleats or circle fullness. In girls' sizes 1, 2, 4, 6, 8. Price is 40¢.



9455



8993

No. 8993. This pattern offers Western styling in separates for boys and girls. Pocket flaps button down or stand up. Sizes 2, 4, 6, 8, 10, 12. Pattern price 45¢.

The Country Guide Pattern Department

1760 Ellice Ave.,
Winnipeg 12, Man.

528 Evans Ave.,
Toronto 14, Ont.

Please send Butterick

Pattern No. _____ Size _____ Price _____

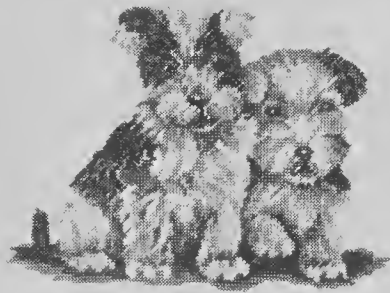
Pattern No. _____ Size _____ Price _____

To _____

HANDICRAFTS

NEEDLE POINT KITS

M-156. Another Indian portrait is available in kits containing pattern and materials. Picture measures 4¼ by 8 inches in 3-thread; 3½ by 6 inches in 2-thread. Price \$3.75. In wool it measures 14 by 21 inches. Price \$7.



M-157. These Sealyham puppies are quiet pets. Worked in 3-thread this picture measures 3½ by 5 inches; in 2-thread it measures 3 by 4 inches. Kits are priced at \$1.75 each. Chart alone is 35¢.

M-101. Two roses, violets and a white lily combine to make this attractive floral picture. Worked in 3-thread it measures 5 by 5 inches; in 2-thread, 4 by 4 inches. Kit price \$3. Chart only, 75¢.



M-152. These red poppies, white daisies and blue cornflowers will last through many seasons. Background color is five shades of blue-gray. Picture measures 8 by 11 inches in 2-thread; 10 by 13½ inches in 3-thread; 22 by 29½ inches in wool. Petit point kits \$8.50, wool \$13.50. Chart alone is \$2.50.

IN THE KITCHEN

Refrigerator recipes keep the kitchen and the cook cool. These are

Sweet and Cold

by JULIA MANN



[Pan-American Coffee Bureau photo]

IT'S fun to entertain—fun for you to give a party, and fun for your friends to come to your party. A tea is a simple and pleasant way to do this entertaining. However, not many of us feel inspired to do a lot of cooking these days when temperatures seem to be sky-high. Fortunately, you can put your refrigerator to good use in preparing these dainties or desserts for your entertaining.

Peanut Butter Squares

½ c. brown sugar	½ c. corn syrup
1 c. peanut butter	1 tsp. vanilla
2 c. cornflakes	1 c. rice crispies

Put the brown sugar and corn syrup in a double boiler to dissolve the sugar. Remove from the heat and add the remaining ingredients. Stir well and spread in a buttered 8-inch pan.

Icing

1 c. brown sugar	2 T. butter
6 T. cream	1-2 c. icing sugar

Mix together the brown sugar, butter and cream. Bring to a boil. Add 1-2 cups of icing sugar. Spread on the cake and then cut into slices.

Tutti-Fruit Balls

Yields 2½ dozen

¾ c. sweetened condensed milk	1 T. lemon juice
¼ lb. marshmallows, miniature	½ c. nuts, chopped
½ c. raisins, chopped	½ c. maraschino cherries, chopped
½ c. coconut	1½ c. graham wafer crumbs

Blend together the milk, lemon juice, marshmallows, fruit and 1 cup of the graham wafer crumbs. Shape into round balls and roll in the remaining crumbs. Chill in the refrigerator.

Chocolate Drops

1 egg	½ lb. marshmallows
4 squares semi-sweet chocolate	¼ c. maraschino cherries
½ c. icing sugar	
1 tsp. vanilla	

Melt the chocolate in a double boiler. Beat the egg yolk and add the vanilla. Beat the egg white with the icing sugar. Cut the marshmallows into small pieces. Add the egg white to the yolk and add

Coffee Coronet

Yields 12 servings

2 envelopes unflavored gelatin	1 c. broken pecans
½ c. strong, cold coffee	2 doz. ladyfingers
1½ c. strong, hot coffee	3 oz. semi-sweet chocolate pieces, melted
1 c. sugar	2 c. heavy cream
	1 T. rum flavoring

Sprinkle the gelatin in the cold coffee. Add the hot coffee, sugar and stir until sugar and gelatin dissolve. Chill until the mixture is the consistency of unbeaten egg white. Meanwhile, split 9 or 10 ladyfingers and dip one end of each in melted chocolate. Then whip the chilled gelatin mixture until light and fluffy. Whip the cream and fold in with the pecans and rum flavoring. Spoon into a spring-form pan to a depth of about one-half inch. Stand the chocolate tipped ladyfingers upright around the edge of the pan, with the chocolate tips uppermost. Add about one-third of the remaining gelatin mixture, and layer with plain split ladyfingers. Add another third of the gelatin mixture, another layer of split ladyfingers, and a top layer of gelatin. Chill until firm. Remove from the pan. Just before serving, sprinkle with a mixture of 3 teaspoons sugar and 1 teaspoon of very finely ground coffee. Garnish with additional whipped cream, sugar and coffee mixture.

For handicraft patterns pictured above please address your order to The Country Guide Needlework Dept., 1760 Ellice Ave., Winnipeg 12, Man.

Young People

Studies, not steadies,
should come first

Are You Ready To Go Study?

NO, we didn't say "steady!" We are talking about homework. Many students, both young and old, make their study periods difficult because they do not observe some simple rules. Let's see how much you know about good learning habits. Answer yes or no.

- | | YES | NO |
|---|--------------------------|--------------------------|
| 1. Have you established a good place to study? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Do you have a set routine for each day that includes a time for your assignments? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Do you study best when the radio or television is on? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Do you like to study at the dinner table or have food around you when you are doing homework? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Do you tackle your work in order of importance? | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Do you make a habit of studying with your friends? | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Can you usually see a reason for the assignment even if you feel you will never use the information? | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Do you often engage in long telephone conversations during your time for homework? | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Do you often go to other members of the family for help on your assignment? | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Do you keep up with assignments as they are given? | <input type="checkbox"/> | <input type="checkbox"/> |

Answers:

1. Yes. Arrange with your family for a place to study that is your own. You don't need a fancy desk. A card table will do very well. Boxes can serve as drawers and files. Be sure you have good light, both day and night.

2. Yes. Decide how long you will need each day for your homework. Then talk it over with your family and decide when it is best for all of you. Then stick to the time you set aside each day.
3. No. It has been found that a person does not learn as well with music or noise going on around them as when it is quiet.
4. No. You study best when you do not divide your attention. Eat during eating time. Study during study time. If you need a break, walk around, get something to eat. Then get back to the books.
5. Yes. Don't be tempted to do the assignment you like best before any other. It's better to do the assignment that is due or work at the subject you find most difficult.
6. No. Unless your friend is acting as a tutor or the assignment calls for studying together, you will do better on your own.
7. Yes. The important thing is to get on with your work. An excuse is a lazy student's alibi. No one knows specifically what information he may or may not use in later years. Besides, it's good mental discipline.
8. No. Don't let interruptions cut down your efficiency. Ask your family to answer the phone for you and cut your own conversation short with a truthful explanation.
9. No. Who's supposed to learn? Your parents may help you but you should do your own homework.
10. Yes. You can't build a strong wall by omitting some of the bricks. By keeping up your assignments, you build a foundation for future learning.

Scoring:

Give yourself 10 points for each correct answer:

90 to 100 points: Your study habits are excellent. You probably enjoy school even though you may not be the head of the class. The habits you are forming will help you to become a dependable adult who is capable of handling most jobs.

40 to 80 points: Average. Your life can be easier if you take some time to make it so. See where you missed on these questions, and try to make some changes.

0 to 30 points: Poor. You are missing a lot, and you'll regret it later. We hope this quiz will help you to correct your study habits. You wouldn't have read this far unless, at heart, you really wanted to know how to study!

Kindness Is Catching

by D. I. SCOTNEY

*Dear Father hear and bless
Thy beast and singing birds
And guard with tenderness
Small things that have no words.*

—KINDNESS CLUB PRAYER

WHEN Mrs. Hugh John Flemming, of Fredericton, N.B., opens her mail she's quite likely to receive a large number of letters containing stories of pet animals. Other letters may ask for information about starting a Kindness Club branch.

What is the Kindness Club? It's a club whose purpose is to cultivate a love and knowledge of birds and animals and the need to be kind to them. "Kindness is a wonderful thing," says Mrs. Flemming. "Animals, children and even adults are better for it and it should be our task to discover and share experiences in kindness, mercy and compassion."

Membership is open to all young people under 18 who promise to be kind to animals. They pledge themselves to protect animals from suffering, and to speak and act in defense of creatures who cannot speak for themselves.

Fredericton had the first Kindness Club, and now there are a total of 28 branches. Each branch uses the name of an animal or bird, such as beaver, eagle, chipmunk or owl. It has its own officers who work under the club's general rules.

A Raccoon captain, appointed by the central club, helps the youngsters to organize. This captain is only a link between the branch and the central

club. He does not attend meetings but does give advice when he is asked. His responsibility is to advise the branch of such activities as pet shows, talks by special speakers, outings, nature studies and club competitions.

At meetings, members address one another by first names, preceded by the club name. For example, Mary becomes Beaver Mary and Sammy becomes Eagle Sammy.

Members help by selling Kindness correspondence cards. When members have sold 10 packets of the cards, they receive a Kindness Club badge. Animal and bird drawings by a Halifax artist and the club's prayer for animals decorate the front cover. This money provides funds for recreational

and educational activities in the humane treatment of animals, for building animal shelters and bird boxes, veterinarian treatment and other humane activities.

In Moncton, members visit the local animal shelter in groups and listen to talks on pet care. They make scrapbooks which show animal ways and welfare. Prizes are given for the best entries and for the best stories of kind things done for animals. Later, these are broadcast over the local television station. This branch also plans an annual gathering and a pet show.

Mrs. Flemming, who is president of the central club, says that, in a very brief time, 900 young people have enrolled as members. Now a move-

ment to form clubs among Nova Scotia school children is beginning. Inquiries regarding the club's work have come from as far away as Florida, Virginia and Washington, D.C., in the United States, and from Canada's west coast city of Vancouver. They prove Mrs. Flemming's claim that people are interested in promoting kindness to birds and animals. ✓

Fortune Fun

by EVELYN WITTER

"FORTUNES" are always favorite party fun and make good ice-breakers. As soon as your guests arrive have them draw a fortune from a box decorated in keeping with the season or symbolic of a special day. Have each one read his fortune aloud. Here are some "Fortunes" you can have printed or typed in advance, ready for any group meeting. They're sure to start the guests talking and laughing.

1. For you good luck will come to pass,
Even though you break a looking-glass.
2. A rabbit's foot? You need not that,
You'll always be a lucky Cat!
3. No wonder you cause great alarm,
You ring a bell with all your charm!
4. If you are worried about those passes,
Just give up your Science classes.
5. In love you shall have scant success,
But forge ahead in business.
6. Though you do not often act the part,
You're a man hater in your heart.
7. A millionaire will hold you dear,
But you will choose a dull career.
8. From the Book of Fate let me quote:
"You shall be a songstress of great note."
9. At your color of hair do not despair,
Dye it enough and there'll be none there.
10. A person you will meet one night,
Will take you for a non-stop flight.



Here three recent recruits to the Kindness Club are pictured with Mr. and Mrs. Hugh John Flemming. All three recently earned their club badges.

What Farm Organizations Are Doing

(Continued from page 10)

Referring specifically to the Canadian automobile industry, the MFA letter went on to state "... we believe that in the long run Canada and the Canadian automobile industry will benefit more by being required to produce a competitive product through more efficient use of capital and labor, rather than through a heavy 'subsidy' paid by the Canadian consumer, through artificially high prices."

The Federation pointed out that, while it did not dispute the evident justification for certain tariffs, or the occasional need for import restrictions, government policy of indiscriminately yielding to demands for increased protection for certain industries, without carefully establishing and weighing the resultant effects upon the rest of the Canadian economy, can lead only to increasing inflation, lowering of our trading position in world markets, unfair distribution of Canada's wealth, the maintenance of inefficiency in protected industries, and a lower standard of living for Canadian people. ✓

IFUC SPONSORS HOG BOARD MEETING

The Interprovincial Farm Union Council convened a meeting in Saskatoon last month of representatives of nine farm organizations in the Prairie Provinces to study proposals for a hog marketing board.

The meeting went on record as being in favor of the principle of producer marketing boards as it would

apply in each province, coupled with the use of an interprovincial agency to handle export and interprovincial trade.

A committee was established to study the Ontario Hog Marketing Board and its pros and cons, as well as procedures and regulations of other marketing boards or alternative plans.

It is the intention to use the information gained by the committee in an educational program designed to acquaint hog producers with problems affecting the hog industry. ✓

CFA SUPPORTS FINANCE CHARGES ACT

The Canadian Federation of Agriculture, in a submission to the Senate Committee on Banking and Commerce, has supported the principle of Bill S-25, entitled The Finance Charges (Disclosure) Act. This Bill, if enacted, would make it a requirement for any person extending credit, as part of his business, to inform his customer what he is charging in the way of finance charges of all kinds, both in terms of total cost, and in terms of the simple annual interest rate.

"Our feeling is that the passage of this Bill could make a very great contribution to more general public understanding of the cost of credit," the CFA said, "and this, in turn, should lead to more and more people abandoning their reliance on credit sources that charge excessively high rates. The result could also be, of course, a healthy reduction in the amount of unwise use of credit." ✓

materials to supplemental stockpile costs \$237 million. Payments to the Veterans' Administration and armed services for buying dairy products in excess of normal requirements, \$29 million. Foreign currencies used by the military, \$5 million.

Food distribution programs. The school lunch program is taking \$154 million; the school milk program, \$80 million; and other surplus food and disposal programs, \$108 million.

REA and FHA loans, which are subject to repayment, are taking \$325 million for the Rural Electrification Administration and \$251 million for the Farmers Home Administration.

Programs for the improvement of agricultural resources comprise research, meat inspection, disease and pest control, education, and regulation of markets, etc. Expenditures for the year ending June 30 are estimated as follows: Forest Service, \$208 million; Agricultural Research Service, \$172 million; Soil Conservation Service, \$130 million; marketing research and service (AMS), \$40 million; Farmers Home Administration expenses, \$31 million; and other expenses (including expenses of the Farmer Co-operative Service, Foreign Agricultural Service, Commodities Exchange Authority, Federal Crop Insurance Corporation and Rural Electrification Administration), \$31 million.

The total cost of these multiple-benefit programs for this year is estimated at \$3,084 million compared with \$3,134 million a year ago. ✓

SAME INITIAL PAYMENTS FOR WHEAT, OATS AND BARLEY

The Hon. Gordon Churchill, Minister of Trade and Commerce, has announced that the initial payments for the basic grades of Western wheat, oats and barley will continue at the same level for the 1960-61 crop year. They are as follows: wheat, \$1.40 per bu., basis No. 1 Northern Wheat in store Fort William/Port Arthur or Vancouver; barley, 96 cents per bu., basis No. 3 Canada Western Six Row Barley in store Fort William/Port Arthur; and, oats, 60 cents per bu., basis No. 2 Canada Western Oats in store Fort William/Port Arthur. ✓

NEW GRAIN EXCHANGE SECRETARY



James W. Clarke, who has been appointed Secretary and Treasurer of the Winnipeg Grain Exchange. He succeeds R. S. Elliot who died suddenly earlier this year. Mr. Clarke is a native of Imperial, Sask. He received his Bachelor's and Master's degrees in Scientific Agriculture from the University of Saskatchewan, and took further post-graduate study at Iowa State College. He has spent 5 years in the employ of the Economics Division, Canada Department of Agriculture at Saskatoon, and the past 7 years as director of the Vocational School of Agriculture at Kindersley, Sask. His work in the fields of agricultural economics and farm management, through research, extension and teaching have been widely acclaimed throughout the Prairie Provinces. ✓

TENDERED BEEF TO BE INTRODUCED IN CANADA

P. L. Ayers, president of Swift Canadian Co., Limited, has announced a scientific break-through making possible the use of a new method of increasing tenderness of all beef.

"It climaxes a long-time meat industry search for a practical method to produce steaks, roasts and other cuts of beef with increased tenderness for all grades," Mr. Ayers said in making the announcement.

Mr. Ayers expressed the opinion that this significant development will make beef even more popular with consumers than it is today. It also

What's Happening

(Continued from page 9)

Soil bank programs are taking \$5 million for the acreage reserve program and about \$365 million for the conservation reserve program.

Price - support programs include loans made, \$1,239 million; commodity purchases, \$2,003 million; interest and operating expenses, \$513 million; and other program net expense, \$103 million. These outlays

will total about \$4,632 million, but the net cost to the United States Treasury will be reduced by about \$2,804 million, proceeds from the sale of commodities. Another \$29 million is subtracted because it represents payments to the Veterans' Administration and the armed services for purchases of dairy products in excess of their normal requirements. Net cost of the CCC price-support program thus is set at \$2,734 million.

The National Wool Act program will take about \$94 million this fiscal year ending June 30. Acreage allotments and marketing quota administrative expenses will be about \$41 million. The Sugar Act program will require \$74 million.

The total net cost of these programs which are primarily for the benefit of farmers will be around \$2,622 million this year. This compares with \$3,957 million last year.

PROGRAMS HAVING MULTIPLE BENEFITS

Programs having foreign relations and defense aspects include sales of surplus agricultural commodities for foreign currencies which are taking \$1,055 million. The program of famine relief in friendly foreign countries will take \$115 million. International wheat agreement commitments cost \$49 million. Transfer of bartered



[Gilbert A. Milne photo]

John Chmiel, Canada's champion flue-cured tobacco grower at Scotland, Ont. He won the coveted Rothman's Gold Leaf award in competition with 4,300 growers. He is his own farm manager and curer, and produced 71,702 pounds of tobacco on 33.14 acres. His average winning yield per acre was 2,144 lb.

What's Happening

means that an increased variety of cuts can be broiled or roasted.

"Livestock producers, the meat distribution trade and consumers will all benefit," according to Mr. Ayers.

The new method involves adding natural food enzymes to cattle before processing. The action of enzymes in making beef tender has been known for years. However, there has been no satisfactory way until now to supplement the amount of enzymes naturally present in beef. This is the secret which has been unlocked by the Swift scientists.

Marketing tests with the tendered beef are to start in the Toronto area in August, and will be expanded to other parts of the country as additional facilities become available. It will be some time before tendered beef will become available nationally.

CANADIAN AND WORLD POPULATION

The estimated population of Canada at June 1, 1960, was 17,814,000. This compares with 17,442,000 in the same time last year, and 16,081,000 in June 1956.

Here are the 1960 DBS estimates by provinces:

Newfoundland	459,000
Prince Edward Island	103,000
Nova Scotia	723,000
New Brunswick	600,000
Quebec	5,106,000
Ontario	6,089,000
Manitoba	899,000
Saskatchewan	910,000
Alberta	1,283,000
British Columbia	1,606,000
Yukon	14,000
Northwest Territories	22,000
CANADA	17,814,000

At mid-1958, total world population was estimated by the United Nations to be 2,852 million.

SEEDS ACT PROCLAIMED

The Seeds Act, 1959, was proclaimed and went into effect on July 15. Regulations under the Act also became effective the same day.

The regulations provide for grades of registered seed, certified seed and commercial, unpedigreed seed. Under the new legislation the Canadian Seed Growers' Association becomes the sole seed pedigreeing agency in Canada.

Grade names are retained in the

new legislation, but now it will be permissible to indicate on the tag additional information as to details of analysis.

Another important change is that seed of certain forage crops can now be sold under a variety name if the seed is of registered or certified grades. Formerly, variety names could be used on all grades.

GOALS FOR TODAY'S FARMERS

On the assumption that those in farming today cannot afford to be average and stay in business, John L. Strohm, former editor of Country Gentleman, asked a panel of United States college specialists, county agents, and topnotch farmers to set up some crop and livestock goals. The figures produced are ones that these people believe the average farmer can hit, if he uses the best of today's farming practices. Here are some of them. How do you rate?

Dairying. 10,000 lb. of milk per cow and 300,000 lb. of milk per man.

Livestock. 10 pigs per litter saved, and a feed conversion ratio of 300 lb. of feed for 100 lb. of gain. A 50-sow herd.

Cattle feeders should shoot for \$150 return on \$100 worth of feed.

Managed pasture should produce 5,000 lb. of milk per cow, or 400 lb. of beef per acre.

A 150 per cent lamb crop and a \$35 return per ewe.

Eggs and Broilers. 250 eggs per hen with at least 5,000 layers per man.

Four batches of 40,000 broiler birds per year, with a feed conversion of 2.3 lb. of feed per lb. of meat.

Corn. 100 bu. per acre at a cost of 70 cents per bu.

Wheat. 40 bu. per acre at a cost of \$1.00 per bu.

HOG NUMBERS DOWN 20 PER CENT

The number of hogs on farms in Canada at June 1, 1960 was estimated by DBS at 5,483,000 head—a drop of 20 per cent from 6,872,000 head on farms at the same date a year earlier. Decreases occurred in all provinces but Nova Scotia. Reductions were more pronounced in Western Provinces where the cut-back averaged 25 per cent compared with 16 per cent in the East.

The DBS report also indicates the spring pig crop was 21 per cent less than in 1959, and, according to farmers' intentions at June 1, summer and fall farrowings will stand at 91 per cent of the same period last year.

UCO ACHIEVES DEBENTURE GOAL

Leonard Harmon, general manager of the United Co-operatives of Ontario, announced in mid-July that a debenture sales campaign of \$1 million by September 30, 1960, had already been achieved. The campaign was launched in January to finance the growth of co-operative services and facilities in the province.

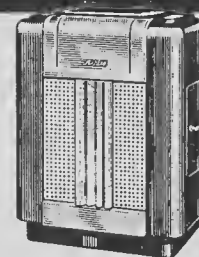
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What's Happening

(Continued from page 49)

1959, it made a record million dollars net earnings, after taxes, in feed and fertilizer manufacturing, and distribution of feed, farm supplies, agricultural chemicals, fertilizers, petroleum, and marketing of livestock and grain. Some \$900,000 of this net earnings was returned to patrons in the form of patronage dividends.



Hi Folks:

Ted Corbett looked pretty discouraged when he called around to see me the other day.

"Maybe I should give up trying to farm," he said. "Without a university education a man can't get anywhere these days."

"You can learn a lot in college," I agreed, "but it's sort of late to be thinking of that. If you want to improve your methods though, you can always get some farm expert to give you a bit of advice."

"Improving my methods doesn't worry me right now," he said. "I haven't got that far yet. What I need is a language expert to help me read this government pamphlet that just came in the mail."

"Are they still 'finalizing' things?" I wondered. "I thought Mr. Harkness was going to fix the finalizers once and for all."

"Maybe he did," Ted said sourly, "but here's one who got away clean. Listen to this now: 'these figures are approximations in view of difficulties in matching values per unit reported by the marketing board with those used in farm income calculations.'"

"That sounds pretty good to me," I told him. "It has a sort of swing to it if you say it fast enough."

"And that ain't all," he went on. "It says here that 'these regions usually

Of the total 2,500 investors in UCO debentures, the majority are farmers across Ontario. The debentures have appealed particularly to investors because of a practice maintained by UCO of cashing them at par value ahead of maturity in case of hardship on the owner's part. Ten- and twenty-year debentures earn 6 per cent interest, while short term or five-year debentures earn 5 per cent. V

embrace most of the commercial production for the commodity concerned in the province'."

"Sounds even better," I said, "and I sure like that bit above there where it says that something 'deviates from the negotiating type'." I pointed it out with my finger.

"I don't know what it means," Ted growled, "but I've seen that word 'deviate' in my newspaper, and I can tell you right now, it ain't good."

"You phone up Tom Branum," I suggested. "He's been to college. Maybe he can translate."

Ted was back in a few minutes all smiles. "That piece about the regions just means that the boards operate in areas of heavy production," he beamed, "and 'deviate' means to 'depart or swerve from a course of action' or to differ. It ain't what I thought at all."

"Like the time you had to deviate the truck to keep from hitting Bob Jackson's dog," I nodded. "What about that other bit—those approximate figures and the like?"

"Tom said to forget it. In fact, he asked me how I got ahold of that pamphlet in the first place. Said it was written for other experts to read and not for the likes of me."

Sincerely,
PETE WILLIAMS.

LETTERS

(Continued from page 7)

\$2.05 a bushel which was beyond the reach of millions of starving people in other parts of the world. This is how Canada lost her market abroad.

Had farmers been allowed to sell each year's crop on a competitive, voluntary basis, and through the wheat pool, the wheat would all have been sold as in former years. The sooner the Government stops interfering with the laws of nature, the better it will be for the farmer and the country as well.

D. D. McEACHERN,
Vancouver, B.C.

Restoring the Industry

I felt encouraged by your recent editorial on the butter situation. It is about the only public support I have received for a change of policy—a change which I have been urging for the past 3 years. There are indications now of some new thinking on this question. Let us hope it is not too late.

I have made a study of the milk equivalents of per capita consumption of Canadian dairy products going back to 1948. Here are the figures for 1948, 1956 and 1959.

	1948 lb.	1956 lb.	1959 lb.
Butter	622	476	421
Whole Milk	334	334	324
Cream	61	60	59
Cheese	44	60	66
Evaporated	35	42	40
Ice Cream	28	35	33
Other products	8	5	2
TOTALS	1,132	1,012	945
Population (millions)	12.8	16.1	17.4

If our 1956 consumption level had been maintained, about 19 billion pounds of milk would have been needed last year to supply our needs, or some 800 million pounds more than was produced.

Our biggest drops in consumption have been in butter and whole milk. Let us work on these two outlets.

A study of the milk situation in the U.S. has been made by four of their leading economists recently. The only solution they finally could come up with for the dairy problem is to restrict production to known demand. Personally, I do not think we have reached this stage in Canada, and if aggressive action is taken, the situation here can be saved.

Let us make every effort to get our butter consumption back to 20 lb. per capita for one thing. There are also steps which can be taken to increase fluid milk consumption. In 5 years, the U.S. has built up a school lunch and milk in schools program which in 1959 used about 1.2 billion lb. of milk. On a population basis, we could hope for at least a tenth of this amount in Canada as an additional fluid outlet. In Great Britain there were 4 or 5 milk vending machines in operation in 1957. By 1960 there were 2,600 such machines in use, and they are given credit for dispensing about 3 million gallons of milk, with very little effect on regular outlets.

Four years ago, among 17 of the leading western countries, Canada stood third in the consumption of dairy products expressed in terms of milk equivalent. Today, Canada is in sixth place, and is only within 60 lb. of ninth place. Such a drop should be a further warning of the need to reconsider dairy policy.

Let the whole dairy industry give loyal and full support to the Dairy Farmers of Canada advertising program, by helping to collect the June set-aside. With these and other measures the dairy industry can still be restored to a sound basis.

GILBERT MACMILLAN,
Box 789,
Huntingdon, Que.

Poetry—the Completing Touch

I have watched with delight as poems have started to appear in The Guide at last! At last, it is a complete paper! How I missed them in The Guide all through the years.

I've often wondered if former editors thought farm people had no appreciation of poetry. And why not give them a chance to show off their talents, by way of a change from the usual everyday work? Now at last it seems that chance is here. Please keep it up.

The Guide is a wonderful paper, but adding poetry just gives it that extra touch needed to make it complete.

MRS. E. HELGASON,
Sexsmith, Alta.

Letters intended for publication should not exceed 200 words.—Ed.

THE TILLERS

by JIM ZILVERBERG

